

DOCUMENT RESUME

ED 041 226

AC 008 223

AUTHOR Stewart, Edward C.; And Others
TITLE Simulating Intercultural Communication through Role-Playing.
INSTITUTION Human Resources Research Organization, Alexandria, Va.
REPORT NO TR-69-7
PUB DATE May 69
NOTE 69p.

EDRS PRICE MF-\$0.50 HC-\$3.55
DESCRIPTORS Analysis of Variance, Behavior Change, Bibliographies, *Communication (Thought Transfer), Correlation, *Cross Cultural Training, Program Design, Program Evaluation, *Research, *Role Playing, *Simulation, Tests, Values

ABSTRACT

This report describes the design and development of training to increase cultural awareness. Significant aspects of intercultural interaction were simulated in a series of role playing exercises. Typical American values and assumptions were demonstrably elicited from a trainee as he interacted with a "foreign" auxiliary. The auxiliary was trained to reflect a mirror image of American values and assumptions judged important to overseas performance. These values and assumptions were derived from an analysis of American "middle class" culture. Several paper and pencil tests were developed as interim estimates of training objectives. Preliminary data bearing on the effectiveness of the technique were presented. Possible variations in training format were suggested and some conclusions drawn for use of the simulation exercises. (The document includes 32 references, seven tables, background material for role players, and instructions for part of Test D.) (Authors/LY)

ED0 41226

Technical Report 69-7

Simulating Intercultural Communication Through Role-Playing

by

Edward C. Stewart, Jack Danielian, and
Robert J. Foster

HumRRO Division No. 7 (Language and Area Training)

AD _____

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE
PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION
POSITION OR POLICY.

May 1969

Prepared for:

Office, Chief of
Research and Development
Department of the Army

Contract DAHC 19-69.C-0018

This document has been
approved for public release
and sale; its distribution
is unlimited.

Destroy this report when it is no longer needed.
Do not return it to the originator.

ED041226

Simulating Intercultural Communication Through Role-Playing

by

*Edward C. Stewart, Jack Danielian, and
Robert J. Foster*

This document has been approved for public release
and sale; its distribution is unlimited.

May 1969

Prepared for:

Office, Chief of Research and Development
Department of the Army
Contract DAHC 19-69-C-0018 (DA Proj 2J062107A744)

HumRRO Division No. 7 (Language and Area Training)
Alexandria, Virginia

The George Washington University
HUMAN RESOURCES RESEARCH OFFICE

Technical Report 69-7
Work Unit AREA
Sub-Unit II

The Human Resources Research Office is a nongovernmental agency of The George Washington University. HumRRO research for the Department of the Army is conducted under Contract DAHC 19-69-C-0018. HumRRO's mission for the Department of the Army is to conduct research in the fields of training, motivation, and leadership.

The findings in this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

Published

May 1969

by

The George Washington University
HUMAN RESOURCES RESEARCH OFFICE
300 North Washington Street
Alexandria, Virginia 22314

Distributed under the authority of the
Chief of Research and Development
Department of the Army
Washington, D.C. 20310

FOREWORD

The objective of the research described in this report is to design and develop an innovation in area training. This innovation involves a live role-playing situation in which psychologically and culturally significant interpersonal aspects of the overseas situation are simulated. The technique confronts the trainee, in the role of the American advisor, with the consequences of typically unrecognized cultural values and assumptions in an intercultural situation.

This study was undertaken by the Human Resources Research Office under Work Sub-Unit AREA II, Studies of Simulation Techniques for Training Military Advisors, which forms part of a larger research effort, Work Unit AREA, Development of Concepts and Techniques for Area Training. The research is being conducted by HumRRO Division No. 7 (Language and Area Training), Alexandria, Virginia, with Dr. Arthur J. Hoehn as Director of Research.

Dr. Alfred J. Kraemer was Leader of Work Unit AREA during the planning and early conceptualization of the study, Dr. Edward C. Stewart during later conceptualization, development, and evaluation; and Dr. Robert J. Foster during the period of report preparation. Research Associates Martin Sternin, John Pryle, and Sheldon Smith assisted the authors at various stages of the work. The auxiliaries (Contrast-Americans) were played by Mr. Joseph C. D'Mello and Mr. Turget Akter. Mr. D'Mello also contributed to the authors' understanding of American and non-American values and assumptions. Mr. Sternin carried the primary role in developing Test B. Dr. Stewart, with the assistance of Dr. Kraemer, developed the basic concepts of the simulation and the analyses of American and Contrast-American cultures; Dr. Danielian conceptualized the training implications of the simulation and devised the strategy for assessment as well as developing the role-playing situations and criterion tests. Dr. Foster participated in various stages of planning, and reorganized and rewrote earlier drafts of the report.

Previous Work Unit AREA publications include Some Resources for Area Training, HumRRO Technical Report 67-11, by Robert J. Foster and David T. O'Nan, September 1967; An Analysis of Human Relations Training and Its Implications for Overseas Performance, HumRRO Technical Report 66-15, by Robert J. Foster and Jack Danielian, August 1966; Examples of Cross-Cultural Problems Encountered by Americans Working Overseas: An Instructor's Handbook, by Robert J. Foster, May 1965; Cross-Cultural Problems of U.S. Army Personnel in Laos and Their Implications for Area Training, Research Memorandum, by Alfred J. Kraemer and Edward C. Stewart, September 1964 (For Official Use Only); "The Simulation of Cultural Differences," by Edward C. Stewart, Journal of Communication, December 1966 (issued as Professional Paper 19-67, April 1967);

"Live Simulation of Affect-Laden Cultural Cognitions," by Jack Danielian, Journal of Conflict Resolution, September 1967 (issued as Professional Paper 49-67, November 1967); "American Advisors Overseas," by Edward C. Stewart, Military Review, February 1965.

Permission has been obtained for the use of copyrighted material in this report.

HumRRO research for the Department of the Army is conducted under Contract DAHC 19-69-C-0018; research under Work Unit AREA is performed under Army Project No. 2J062107A744, Language and Area Training.

Meredith P. Crawford
Director
Human Resources Research Office

SUMMARY AND CONCLUSIONS

Problem

Successful performance of overseas missions involves a whole range of individual, unit, national, and international considerations extending far beyond the purview of the individual advisor. Nevertheless, the nature of overseas assignments—involving, as they often do, continuing contact with indigenous persons whose values and expectations contrast sharply with those of an American—inevitably intensifies the importance of individual-level factors. Among these are professional knowledge, language ability, interpersonal effectiveness, and cultural awareness.

Traditionally, training programs for overseas missions have emphasized such desirable components of individual performance as technical competence, area knowledge, and language skills. Less emphasized—and often less recognized—are the interpersonal and intercultural capabilities required for effective interaction with foreign personnel. These capabilities are germane to a multitude of formal and informal relationships abroad, although their impact is difficult to isolate or evaluate with any precision.

The purpose of this report is to describe an innovation in area training which was designed to increase cultural sensitivity and awareness, and thereby increase the behavioral adaptability and communicative skills of the overseas advisor. The approach derives from the observation that a basic problem in intercultural interaction is the limitation in perspective imposed by one's own culture, and the common tendency to feel that one's own values and assumptions are absolute rather than derived from one's cultural experience.

Approach and Procedure

Experience has indicated that changes in the attitudinal factors that underlie interpersonal behavior are seldom accomplished by traditional lecture-type training. Consequently it was desirable to use an approach that would give rise to strong personal involvement by using the spontaneous behavior of the trainee as the training vehicle or content. To maximize learning, this is done in the context of additional knowledge, "feedback" about one's behavior, and a supportive training environment. This approach is referred to as experienced-based training, since learning stems from active participation in a realistic situation, or as cognitive-affective learning, since the objectives involve learning at both emotional and intellectual levels.

Development of Simulation Exercises

A technique was developed to simulate psychologically and culturally significant interpersonal aspects of the overseas situation in a live role-playing encounter. The steps by which the simulation was constructed are:

- (1) The literature describing American cultural patterns was reviewed and analyzed in terms of the problems American officials typically encounter overseas. Modal American values and assumptions were codified along dimensions judged relevant to overseas performance according to a modification of a schema presented by Kluckhohn and Strodtbeck (1).

- (2) These dimensions were extended to derive artificial configurations of cultural characteristics that contrast with American ones and that represent mirror images of pertinent aspects of American culture.

- (3) A series of plausible overseas advisory situations ("scenes") were constructed to elicit spontaneous culturally derived behavior from an American trainee.

- (4) Role-playing auxiliaries were trained to reflect the Contrast-American values and assumptions. This was done in such a way that in the interaction of an auxiliary with an American trainee there would be an emotionally involving confrontation between the values and assumptions expressed by the auxiliary and those of the trainee.

- (5) Variations in the role-playing format and other means of increasing learning value were explored.

Preliminary Evaluation of Training

A preliminary evaluation was made by means of paper-and-pencil instruments developed to serve as criteria measures in assessing the training impact of the simulation exercises. The criteria measures involved both awareness of American culture and awareness of "foreign" (i.e., contrast) culture, thereby achieving the desirable goal of simultaneous testing for cultural self- and cultural other-awareness. For both self- and other-awareness, there was a further breakdown into the component processes of thought, emotion, and motive.

The tests of self-awareness were administered before and after training to two groups of business executives who were undergoing training to prepare them for overseas assignments. Two personality variables were also included to investigate possible individual differences in performance on the criterion tests.

Results of Preliminary Evaluation

Within the limitations of the experimental design (primarily the absence of a control group and the need for simultaneous evaluation of criterion measures and training effectiveness), results of the evaluation suggest that for many trainees the simulation exercise was an effective means of increasing cultural awareness at the emotional as well as the intellectual level.

More specific findings were as follows:

- (1) Satisfactory reliability for the criterion tests.
- (2) As a consequence of training, improvement as measured by three of four experimental tests of cultural awareness.
- (3) Some significant correlations between measures of awareness of Contrast-American predispositions (other-awareness) and of American predispositions (cultural self-awareness).
- (4) Some relations between measures of and increases in cultural awareness, and personality scales measuring orientations toward relationships with people.

Conclusions

(1) It is possible to simulate significant psychological and cultural aspects of intercultural interaction in a role-playing format in a way that yields strong trainee involvement.

(2) Impressionistic and empirical findings suggest that the simulation exercises are an effective means of bringing about desired changes in cultural perspective at the emotional as well as the intellectual level. The technique is probably especially effective in confronting the trainee with, and thus reducing rigidity in, his previously acquired ways of thinking and perceiving.

(3) The simulation exercises are adaptable to a variety of formats, trainee populations, and training objectives. Usefulness is not dependent on knowledge of the trainees' overseas destination or particular mission.

(4) The effectiveness of the simulation exercise is probably dependent on:

- (a) The effectiveness of the trainer in handling postsimulation interviews and other methods of intervention and "feedback" to the trainees.
- (b) The number of scenes used; different kinds of learning probably emerge as the amount of training increases.
- (c) The extent and skill with which exercises are integrated into overall training.
- (d) Individual characteristics, including previous training experience, experiences in another culture, and personality characteristics not yet clearly identified.

(5) Utilization in live form, although probably most effective, requires skills in trainers and auxiliaries that are difficult and expensive to obtain. It may be possible to "package" the simulation exercises on film or other media for greater cost effectiveness.

(6) The criteria developed to measure the effectiveness of the simulation exercises seem promising and merit further exploration.

CONTENTS

	Page
Introduction	3
Overseas Problem	3
Research Problem	4

Part I Theoretical Considerations

Nature of the Simulation Exercises	7
Criteria for Training	8

Part II Development of the Intercultural Simulation Exercises

American (Middle Class) Dispositions	13
Activity	14
Social Relationships	15
Motivation.	16
Perception of the World	16
Perception of Self and the Individual	17
Generalized Cultural Forms.	18
Derivation of Contrast Cultures	20
Development of Role-Playing Scenes	24
Illustrative Content of Scenes	24
Initial Meeting.	24
"Grass Roots" Support	25
Publicity.	25
Private Property	26
Leadership	26
Health	27
Some Considerations in Scene Development.	27
Trainee Involvement.	27
An Example of Scene Development.	28
Reducing Cultural Variation.	29
Variation in Settings.	29
The Role and Performance of the Auxiliary.	29
Example of a Simulation Dialogue	30
Training Adaptation of Simulation Exercises	32
Format.	32
Possible Negative Trainee Reaction.	33

Part III

Preliminary Evaluation of Training Effects

Description of Criterion Measures	35
Reliability of Criterion Measures	38
Preliminary Assessment of the Simulation Exercises	38
Trainees and Procedure	39
Changes in Scores Following Simulation Training.	39
Relationship Between Scores Before and After Training	41
Personality Correlates of Culture Awareness Scores	42
Subjective Trainee Reaction	43

Discussion and Implications

Variations in Conduct of Training	44
Integration of Simulation Exercises Into A Total Area Training Program	45
Literature Cited	49

Appendices

A Background Material for Role-Player	51
B Part of Test D	55

Tables

1 Summary of Cultural Assumptions and Values.	20
2 Differences Between Contrast-American Cultures I and II Relative to American Culture	23
3 Categories of Awareness Measured by Criterion Tests.	36
4 Reliability Data for the Three Samples	38
5 Change in Test Scores as a Function of Training, Tests A-C. . .	40
6 Intercorrelation of Pretraining and Posttraining Scores	42
7 Personality Correlates of Cultural Awareness Scores	43

**Simulating
Intercultural Communication
Through Role-Playing**

INTRODUCTION

OVERSEAS PROBLEM

One of the realities of the 1960s is the growing number of military personnel being sent as members of advisory and assistance teams to countries where they come into close, continuing contact with indigenous persons whose culture and psychology differ markedly from our own. The nature of these interactions is inevitably delicate and complex. Misunderstandings and "incidents" can easily assume an overwhelming importance, jeopardizing major investments of effort and funds. The risks of both tangible and intangible losses are great.

What aspects of these overseas assignments contribute to such high possible risks in performance? What are the key qualities required for overseas success? Whether they are referred to as trainers, technical experts, or (a more general term as used in this report) advisors, the job element that most overseas personnel have in common is this: they must attempt to introduce or inculcate ideas, practices and habits in individuals whose culture is different from their own.

The critical significance of cultural differences—especially those subtly represented in deep-seated thought patterns and feelings—has been noted by scholars and by operational personnel overseas, though not in any systematic way. Members of all cultures tend to regard their own ways in interpreting the world as natural and morally right; much of what one thinks and feels is usually regarded unquestioningly as an aspect of the world itself and not a perception of it. It is not surprising, then, that misunderstanding and miscommunication frequently occur between the American advisor and the indigenous personnel. This is true despite the many common goals and even the common characteristics they may share.

Inevitably, the advisor operates in an ambiguous environment, deprived of the organizational structure with which he is familiar and the innumerable cultural cues of his own country. He is frequently placed in an ill-defined and extramilitary role, such as that of change agent, for which he is likely to have had little formal training or experience. To a much larger degree than he has experienced in his accustomed structured organizational setting, the American advisor is thrown on his own resources to adjust to each situation as it arises in his day-to-day efforts.

Mission success cannot be assured, even if every advisor in the field meets exacting standards of individual performance. Success overseas will also depend upon matters outside the purview of the individual advisor; for example, advisory and military assistance objectives must be defined realistically, a workable minimum of organizational structure must be provided, and effective judgment must be practiced in selection and assignment. Obviously, indigenous or international politics may affect, or even determine, the success of overseas assignments of Americans. Nevertheless, the nature of such assignments heavily weights the importance of individual-level variables such as professional knowledge, interpersonal effectiveness, and cross-cultural knowledge and awareness.

What can training contribute to individual performance in an alien cultural setting? Technical competence, area knowledge, and language skills have all been identified at one time or another as pressing needs, and are probably adequately stressed in current training problems. Less often emphasized, however, are the interpersonal and intercultural skills required for effective communication.

RESEARCH PROBLEM

There are a number of training approaches that might be considered for use in efforts to increase intercultural effectiveness. However, if we accept the proposition that many intercultural problems stem from unrecognized assumptions and values (ways of perceiving, thinking, and feeling), then success in training seems unlikely from training approaches that emphasize either (a) the passive acquisition of information, such as traditional classroom lectures or (b) specific "dos and don'ts" of behavior, alone. It will take a more affective involvement to bring about personal changes of the type needed. The way one perceives, and thinks and feels about many aspects of the world is emotionally charged and lies largely outside immediate awareness. One seldom stops to think that his solution to a problem, his moral judgments, or his spontaneous response to an event may be determined by his own cultural conditioning and may not be universally shared or necessarily the "best".

It seems reasonable to assume that, to be effective, a training program must be directed toward cognitive-affective¹ restructuring that will expand the trainee's perspective and take into account emotional aspects of the learning process. Such a program anticipates the trainee's resistance to change (i.e., the difficulty of unlearning modes of perceiving and behaving that interfere with his performing effectively), as well as the need for support in developing new perspectives and modes of behavior. This kind of cognitive restructuring cannot easily be accomplished by following traditional classroom learning techniques, since acquiring knowledge about culture and human interaction is not the same as increasing a man's ability to interact effectively with people of another culture.

The training approach that is being suggested—training aimed at effecting changes in the way one interprets his experience—can be termed the "cognitive-affective approach." The goals of such training vary somewhat, depending on the focus desired by the trainer, but dimensions such as cultural self-awareness, flexibility in seeking alternative solutions, deliberation in forming judgments, a lessening in ethnocentrism, and expanded awareness are likely candidates. Achieving such goals involves learning about the dynamics of intercultural phenomena generally, and learning that things one normally assumes (because of one's prior cultural experience) to be absolute are in fact relative.

While the ultimate desired product of such training is, of course, effective behavior, there is no attempt to teach solutions directly or to provide models for behavior. The purpose is to deal with the cognitive-affective components that underlie behavior, recognizing that increased understanding and awareness provide the trainee with greater capability and flexibility in meeting the intercultural situation effectively. The rationale of this approach to learning, and how the simulation of an intercultural encounter lends itself to this approach, are described more fully in Part I.

¹"Cognitive," as used in this report, refers to the integrating, organizing, meaning-giving aspects of the thinking process. Any concept has a cognitive component, and, to varying degrees, an emotional (affective) component.

The objective of the research was to develop a series of training exercises which would achieve the type of learning that has been described. Unlike many other cognitive-affective training exercises, these require a carefully delimited content of underlying cognitive dimensions—the assumptions and values of persons from the appropriate cultures. The analysis that provides training content also provides a basis for stating the goals of training in a way which permits measurement and evaluation of results.

As described in Part II, role-playing exercises were designed to elicit selected assumptions and values of American and contrasting cultures. The purpose was to achieve a valid simulation of the psychological or experiential aspects¹ of an intercultural encounter, while maintaining some control over the two underlying sets of assumptions and values that would be manifested in the role-playing behavior.

Once the relevant dimensions are identified, the problems of measuring training outcome become much less overwhelming. The second major step in evaluation of training impact is development of criterion measures that reflect the relevant content and assess more than mere acquisition of knowledge. Toward this end, this report (Part III) presents tentative evaluations of a format used in developing Part II. Included are (a) a subjective evaluation, based on observation and trainee comments, and (b) a preliminary empirical evaluation, based on before-and-after-training data derived from a form of the simulation exercise in which most of the trainees were observers rather than actual role-playing participants.

The simulation exercises can be used in a number of ways and in different media. From the administrative perspective, the exercises have the advantage of permitting training to proceed before the trainee's specific destination is known. This should be especially valuable in training personnel who have little time between knowledge of assignment and departure. In view of the wide range of possible overseas assignments, the flexibility of such training seems of considerable practical value in the administration of cross-cultural training programs. It should be kept in mind that the simulation exercises are intended as part of an intercultural-training effort and not as the total program.

¹As opposed to simulation that might stress the physical or the structural aspect, such as dress of participants, events of initial meetings, administrative policy and procedures, power relationships, agricultural problems, or effective counterinsurgency strategy.

Part I

THEORETICAL CONSIDERATIONS

NATURE OF THE SIMULATION EXERCISES

The model used in the simulation exercises is different in several respects from those usually identified with simulation. This model is essentially social-psychological in character, in that an attempt has been made to represent perceptual and experiential reality (including the unconscious aspect of experience) rather than to reproduce, point for point, physical or environmental variables.

The primary building blocks and systematic dimensions of a social-psychological model are cognitive variables—in this instance, cultural values and assumptions. Representation of physical and environmental aspects is important only to the extent that the training exercise must be plausible—it must look and feel like a "real life" situation to the trainee.

Furthermore, it is not necessary for the cognitive variables themselves to be a faithful reproduction of an actual culture. In these exercises, a synthetic but plausible culture was created to contrast with American values and assumptions, for use in guiding the behavior of the "foreigner" in the role-playing exercise. The essential feature of the exercises is a representation of the social-psychological aspects of interaction between people who hold differing values and assumptions; the key function of the exercises is to induce a cognitive confrontation, with accompanying emotional investment and behavioral confrontation.

In this sense the simulation model can be referred to as "functional," since the focus is on process and conditions important to training, rather than on faithful reproduction of the content of the cognitive underpinning of any particular culture. However, American values and assumptions must be accurately depicted, because it is insight into one's own values and assumptions that permits the growth of a perspective which recognizes that differing sets of values and assumptions exist (i.e., cultural relativism), and development of the potential for greater understanding of another culture.

A confrontation during cultural interaction must be distinguished from competition between participants for available rewards. Cognitive confrontation, as the term is used here, involves a dissonance or incongruity between ways of thinking and perceiving, rather than concern over who will win. Rivalry may occur during interaction, but it would be derived from a conflict in cultural perspectives rather than from a conflict of interests as such.

In the simulation exercises, the cognitive confrontation is embedded in experience-based training using role playing to achieve the requirement that the student be affectively involved in learning. This training approach engages the trainee behaviorally and emotionally while simultaneously exposing him to cultural values and assumptions different than his own.

The contrast he encounters in the exercises provides the trainee with a situation that stimulates the dynamic processes of "unfreezing," "moving," and

6/7

"refreezing" that constitute cognitive-affective learning.¹ Emotionally and behaviorally involved in the role-playing situation, the trainee is "unfrozen" from his habitual modes of perception by the experience of being exposed to the consequences of acting upon his own cultural-cognitive frame of reference. The unfreezing is facilitated by exposure to new views which, while inconsistent with the trainee's own views, are presented in a way that makes them difficult to refute; the trainee finds that what seemed to be "normal" (American) solutions to the task at hand are not readily understood or accepted by the "foreigner."

In the unfreezing process, the two sets of cultural values (American and Contrast-American) serve as mirrors for each other so as to increase the level of cultural awareness of oneself and of the "foreign" other. The cognitive confrontation brings one's own values and assumptions into question, making the trainee more aware of the cultural determinant in himself. Self-awareness, in turn, results in greater understanding and empathy with the values and assumptions of a member of another culture; continuing the reciprocal relationship, this increased understanding once again yields a deeper cultural self-awareness which increases other-awareness ad infinitum. Once unfrozen, the trainee is in a semifluid state concerning his own culturally derived perceptions and begins to evaluate the Contrast-American's values and assumptions more freely (relativistically).

Under optimal training circumstances, the trainee would here begin to forge bridges between his cultural position and that of his counterpart, gradually evolving a mutually compatible position. Cultural empathy and suspension of the moral judgments emanating from his own culture are necessary to sustain and nourish the growth of such an emerging position. This process constitutes the "moving" portion of the learning cycle. The actual creation and maintenance of such a position then signifies the desired refreezing at a new level of awareness and behavior.

In broader perspective, the unfreezing process simply sets the stage for future learning ("learning how to learn"), with the payoffs coming in increments each time the person faces new experiences at home or abroad. It is the latter type of continuous relearning that is the primary objective of most cognitive-affective training efforts of this sort.

The learning process does not involve sacrifice of either the trainee's personal values or his advisory mission. On the contrary, by becoming aware of possible alternative cultural positions, he should become more aware of his own cultural values (and blinders) and increase his flexibility in the kinds of approaches or avenues he can utilize.

CRITERIA FOR TRAINING

Inadequate knowledge of what constitutes successful performance abroad has been a major barrier in trying to conceptualize criteria to assess training effectiveness, or to estimate individual potential for selection purposes. This situation is, of course, not unique to overseas positions, as witnessed by continued

¹These terms are used by Lewin (2) and many subsequent writers interested in human relations training. More comprehensive discussions can be found in numerous publications discussing sensitivity training, role playing, and other forms of experience-based training. Schein's (3) treatment of the process of influence as derived from the cognitive-affective change model of Lewin (2) has been especially useful. A HumRRO report summarizes the rationale of experience-based training and describes and evaluates several methods in terms of their potential for improving intercultural training (Foster and Danielian, 4).

but largely unsatisfactory efforts to predict success in any complex job involving a large "people component" (e.g., management, leadership). While there is a need for a clear delineation of what constitutes successful individual performance overseas, in the meantime there is also a need to use the best insights we have at present as a basis for evaluating training effectiveness, and also for selecting personnel.

The training effort in this study is an attempt to induce change in a particular aspect of overseas performance—the intercultural interpersonal area. While available evidence suggests that this aspect has a pervasive and significant impact on overall performance, it is obviously not the only factor nor necessarily the overwhelmingly dominant one. In seeking measures to evaluate training, it makes sense to limit one's thinking to aspects of performance that are highly saturated with behavior likely to reflect the content and kind of learning intended in the training. While other aspects of performance may be highly relevant, a global criterion of overall job performance may be influenced by so many extraneous (relative to the training or predictors being tested) factors that the likelihood of finding statistically significant relationships becomes remote. Supervisors' ratings provide an example of a global criterion that has face validity but is nonetheless likely to have this shortcoming; in such ratings, especially if made through regular administrative channels, it may be the achievement of organizational goals that is being rated, rather than the effectiveness of individual performance. Factors outside the individual's control may at times largely determine success or failure of a mission.

Unfortunately, in developing criteria the distinction between effective behavior by the individual and accomplishment of the mission is often blurred.

The advantages of using partial criteria (e.g., specific effective behaviors) rather than overall performance (e.g., mission success) as a means of making valid estimates of job effectiveness has recently been clarified by S. Rains Wallace (5). He points out that a partial criterion might be relevant not only to the specific job at hand, but also to theoretical concepts that can lead to the prediction of effective job performance in a variety of jobs or job situations. In other words, criteria should be chosen with systematic theoretical concepts in mind. Such an approach not only has possible practical advantages, but will yield a body of knowledge leading to a better understanding of the dynamics involved in successful job performance. Little knowledge or insight is gained from studies concerned only with the overall effectiveness of a training program as measured by a global performance criterion.

Wallace's statement seems especially appropriate to the area of intercultural training. Without knowledge of the situational variables governing various job positions abroad, it is impossible to develop a set of specific prescriptions that can be universally applied. Before attempting to predict what an advisor must do in any particular instance overseas, one must understand some of the impediments of the intercultural barrier.

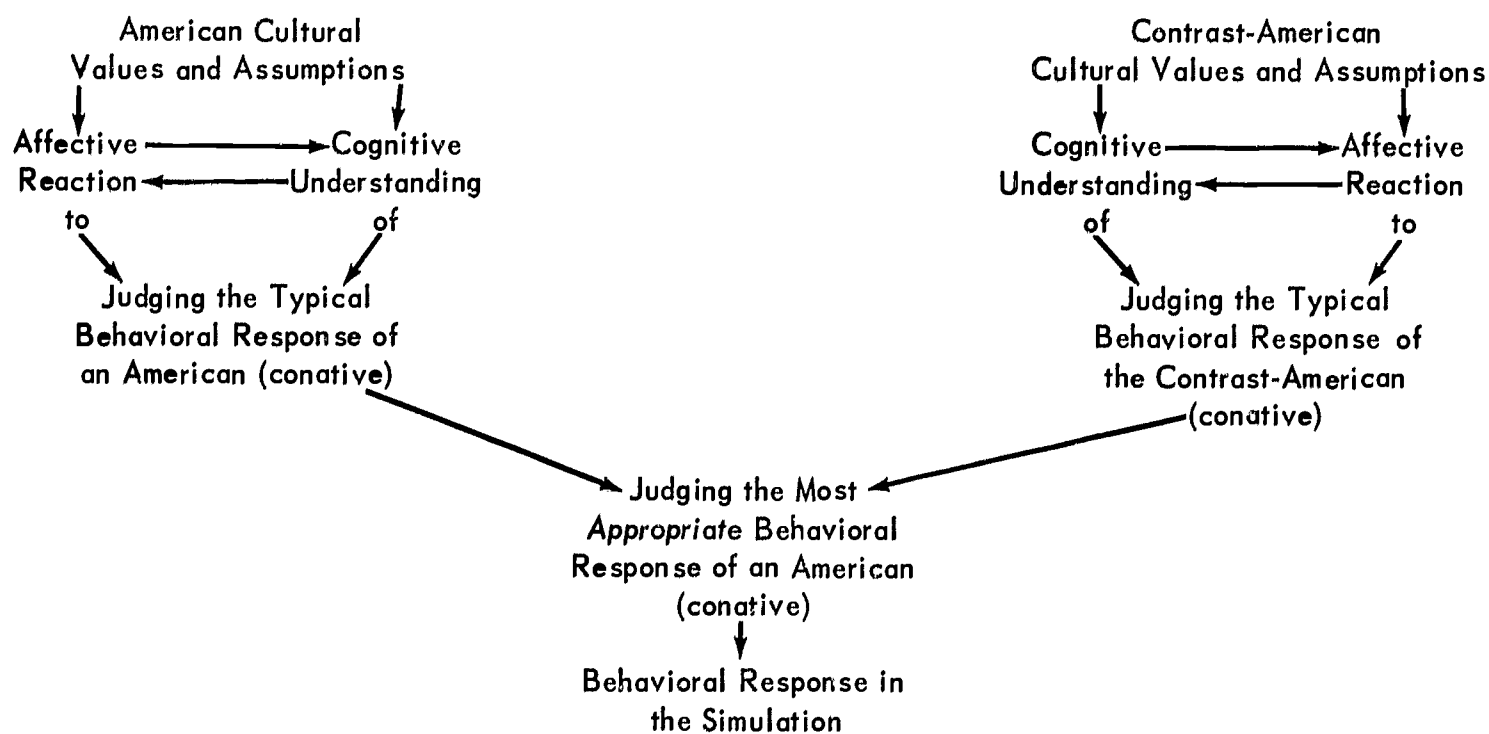
While the use of partial criteria was determined by research considerations, the fact that the measures used in this study were of a preliminary nature had to do with such practical issues as the time and cost of obtaining overseas data. The effects of the exercises, therefore, were not assessed in an actual overseas job assignment context. However, using a training criterion rather than criterion data gathered overseas may be more valid than at first seems apparent since criterion data gathered overseas often have shortcomings.

For example, supervisory ratings are often used as a convenient way of assessing performance overseas; the possible irrelevance of such ratings has

already been noted. Another factor is the probable inability of untrained observers who are in closest contact with a man's behavior and work to make meaningful evaluations on a partial criterion—that is, specific individual behavior rather than general mission outcome. In one study (6), for example, it was found that a vast majority of technical assistance returnees of the Agency for International Development (AID) reported no elements peculiar to the overseas situation in their description of critical incidents of ineffective behavior. Such omission is in sharp contrast with reports from social scientists overseas, which typically emphasize the intercultural elements of the work.

While field criteria might be desired, there is justification for looking to the simulation itself for criteria. A vehicle for training which simulates psychologically and culturally significant aspects of the overseas situation in question may yield its own performance criteria. The measures derived from the simulation may then be treated as criteria with some independence in their own right, providing crucial links between training input and overseas performance.¹

The factors affecting the trainee's behavior in a simulation exercise (or the overseas situation itself) can be schematized as follows:



Classifying mental processes under the three traditional categories—cognitive, affective, and conative—was a useful approach to understanding the complexity of the interaction. "Cognitive" refers to the perceptual process of organizing or structuring the input received by one's senses, "conative" to the accompanying set or predisposition for behavior, and "affective" to the emotional component tied to the percepts in question.

Each component is taken to represent part of an organized whole so we can assume that each will be marked by the same cultural influences. The three components, when applied to one's own cultural values and assumptions (American) and the cultural values and assumptions of the other (Contrast-American), provide the basic framework from which the criterion measures were derived.

¹ The simulation exercises are intended for research as well as training. It was assumed that observation of the simulated interaction could yield understanding of the intercultural-interpersonal process that might be obscured by extraneous factors in an actual overseas situation.

Both awareness of himself as a product of American culture and awareness of the values and assumptions of the "foreign" counterpart can be expected to affect the trainee's behavior in the simulation situation. This awareness will, of course, be influenced by his emotional feelings toward both his own culture and the other culture. Development of the trainee's ability to predict typical responses of an American in the advisory situation and of a Contrast-American represents a step closer to the trainee reacting on a behavioral level; this stage corresponds to the conative component or, loosely speaking, "set for behavior." Ultimately, the trainee must decide upon the most appropriate response and behave accordingly. This step is not assessed in present criteria measures since training is not concerned with teaching solutions or providing an opportunity to practice techniques.

Note that awareness of American and awareness of Contrast-American culture are related and mutually reinforcing, and that both are required for successful performance. More specifically, the trainee needs to forge bridges between his cultural position and that of his counterpart to develop a mutually compatible position.

This position can be regarded as an interpersonal analog of the "third culture" concept used by Useem and his colleagues. Useem, Useem, and Donoghue (7) have referred to a mutually compatible position between two cultures as a "third culture." "The binational third culture is defined as the complex of patterns learned and shared by communities of men stemming from both a Western and a non-Western society. The third culture cannot be fully understood without reference to the societies it relates and in which the participants learned how to act as human beings." Although the reference of these authors is societal rather than individual, the notion of the third culture seems relevant by analogy to the process being described in this report.

Part II

DEVELOPMENT OF THE INTERCULTURAL SIMULATION EXERCISES

The paradigm used in the development of the simulation exercises calls for at least one American participant (advisor) and his foreign counterpart to meet in an intercultural encounter. The American advisor role is played spontaneously by a trainee on the basis of background and scene information that is provided him. While this role is indirectly controlled by means of the "scenes" (defined below), the role of the counterpart (hereafter often referred to as the auxiliary) is directly and deliberately manipulated according to specified values and assumptions that are to determine his reactions to the American trainee.

The steps by which the simulation was constructed are as follows:

- (1) The literature describing American cultural patterns was reviewed and analyzed in terms of the problems American officials typically encounter overseas. The modal (middle class)¹ values and assumptions were codified along dimensions judged relevant to overseas performance according to a modification of a schema suggested by Kluckhohn and Strodtbeck (1).
- (2) Contrasting dimensions were defined to yield artificial opposite-to-American cultural values and assumptions ("Contrast-American culture").
- (3) A series of plausible overseas advisory situations ("scenes") were developed to elicit culturally determined behavior from an American trainee.
- (4) Role-playing auxiliaries were trained to reflect the Contrast-American values and assumptions in a way which would bring about strong involvement of the American trainee.
- (5) Role-playing confrontations were played out and formats for feedback to the trainee explored.

These five stages define the major components in the design and development of the training and are treated in more detail later.

For purposes of analysis, culture may be examined at four levels: concrete behavior, values, assumptions, and generalized cultural forms. The last three are necessarily derived from observations of behavior, but can be usefully treated as a motivational explanation underlying most human behavior. Viewed at the individual level they are, in effect, internalized components of personality that are generally shared with other members of the cultural group.

"Values" are relatively concrete, discrete, and specific; for instance, typical American values are the sanctity of private property, the desirability of physical

¹Obviously, it is difficult to generalize about the characteristics of people from any country, especially one as diverse as the United States. Any country consists of *relatively* distinctive subcultures with somewhat overlapping memberships. Middle class values and assumptions clearly represent the modal tendencies or central core of American culture. This emphasis is especially appropriate for overseas training since technical advisory personnel are likely to be from the middle class.

comfort, and the need for tangible measures of success. Values also have a quality of "oughtness" and are relatively available to individual awareness (C. Kluckhohn, 8). A person will often discuss values when explaining his own or others' feelings or behavior.

"Assumptions," on the other hand, are more abstract and more outside of conscious awareness. They represent the predispositions the individual employs to pattern the world, and are usually felt by the individual to be an aspect of the world itself and not simply his perception of it. Examples of American assumptions are a predisposition to see the self as separate from the world, and the usual endorsement of "doing" as the preferred means of self-expression. (1)

Assumptions provide a person with a sense of reality—which is only one of several possible realities—and values provide a basis for choice and evaluation. However, assumptions and values merge into one another. What is an assumption for one individual, or for one culture, may be a value for another individual or for another culture. Any one concept held by a person is likely to combine aspects of both assumptions and values; hence it is difficult, and often unimportant, to determine whether it is one or the other.

In some cases the cognitive processes underlying cultural thinking are so abstract and lacking in substantive reference that they are probably best distinguished from assumptions and called "cultural forms." Examples include assumptions about time, space, essence, energy, and logical process. Cultural forms tend to overlap with assumptions and, to a lesser degree, values. For training purposes it is probably not critical to be able to make firm distinctions; consequently, after the nature of forms, assumptions, and values is illustrated, these concepts will generally be treated under the label "value and assumption" or, where it seems more appropriate, "predisposition." Occasionally, "perspective" or "frame of reference" will be used with more or less the same meaning.

A frequent objection made to efforts to analyze any culture is that people differ from one another in many ways, even within a culture, and any attempt to describe a people according to broad generalizations, such as cultural characteristics, results in stereotypes. It is clear that people differ widely with respect to any particular behavior or value. Nevertheless, certain values and assumptions are dominant in, for example, American culture and are shared to one degree or another by most members. Thus when we speak of an American value (or assumption), we refer to a peak or modal tendency for a range (distribution) of that value in the culture. All points on the distribution can be found in any society; thus when two cultures are compared on a given dimension, there is overlap (i.e., some members of Culture A will be more typical of Culture B than many members of Culture B who may be far from the modal point of their culture).

In addition, an individual's reactions will vary from situation to situation, and from time to time in the same situation. However, there is a relative internal integration and stability in behavior over time and situation. Variations, thus, should not obscure systematic differences which do exist or the validity of stereotypes (modal tendencies) in understanding intercultural phenomena.

AMERICAN (MIDDLE CLASS) DISPOSITIONS

While individuals will differ in their covert and overt adherence to cultural values and assumptions, variations in a culture are both limited and systematic. A cultural pattern, including its variations, may be seen as guides to "a limited

number of common human problems for which all peoples at all times must find some solution." (F. Kluckhohn, 9, p. 221).

Further, one may find in each society the full theoretical range of possible solutions to common human problems, although dominant solutions are of course typical. These problem areas can be used as a framework for identifying inclusive cultural dimensions on which all cultures can be plotted. (9)

The common human problems covered by such a system of assumptions and values can be classified under five categories: activity, social relations, motivation, perception of the world, and perception of the self and of the individual. Each category is briefly identified by describing some American values and assumptions, together with non-Western alternatives, which fall within each category. Their identification follows the work of F. Kluckhohn, with a few divergencies. Kluckhohn's core idea of basic human problems to which there are a limited number of solutions, however, is maintained in identifying the cross-cultural dimensions incorporated in the simulation.

Activity

Self-expression is a problem common to all humans; Kluckhohn refers to this as the activity modality (1). In American society, the dominant mode of activity is "doing." Doing refers to the assumption that activity should result in externalized, visible accomplishment as exemplified by the stock American phrase, "getting things done." The contrasting mode is "being" which, however, does not connote passivity, since a person with a being orientation can be very active. The being orientation refers to the spontaneous expression of what is regarded as the given nature of human personality. It values the phenomenological experience of man rather than his tangible accomplishment and is associated with the notion of having a natural and given position in society. A third possible orientation to activity, which stresses development of all aspects of the integrated person—"being-in-becoming"—is similar to being in its stress on experience rather than accomplishment, but it is dynamic.

Another area of activity that can be analyzed according to several dimensions is problem-solving decision-making. In some cultures, decisions are more likely to be made by an individual because of the role he occupies; under this condition, decisions are much more likely to be influenced by the characteristics of the role than by the preferences or commitments of the individual. Another possibility is for decision-making to be a function of a group, and for no one individual or role occupant to assume responsibility for it. This last alternative, for example, is more typical of Japanese culture than of American culture (Kerlinger, 10).

The concept of what constitutes decision-making varies from culture to culture, and thus requires some alteration when examined within different cultural frameworks. In American society the process of decision-making unfolds primarily through the anticipation of the consequences of alternative courses of action. In some other cultures, however, the function of the decision-maker or makers is to evaluate a situation by classifying it according to pre-established categories. Whatever action ensues, or whatever decisions are made, will follow automatically from this traditional classifying activity (Silvert, 11). Perhaps it is such a process of classification that leads some Western observers to conclude that in the underdeveloped world few decisions are required. This example illustrates the difficulty of getting outside of one's own cultural framework when one is required to examine parallel processes from culture to culture.

The distinctions between different ways of organizing activity also have important implications for learning or teaching (Bateson, 12). For example, Americans implicitly assume that learning is an active process requiring performance by the learner, whose incentive to learn is either a future reward or the avoidance of punishment; thus, learning is regarded as a process of shaping the responses of the learner and building upon them. In some cultures the learner is assumed to be passive and the chief technique used is serial rote learning (Reichel-Dolmatoff, 13); learning is assumed to be an automatic process occurring in a highly structured situation. From this perspective, events in the natural and social world of the learner occur automatically in response to his actions. Since the world is considered as overwhelming, highly structured, and impervious to the initiative of the individual, no stress is put on spontaneity or upon the characteristics of the learner. This kind of learning corresponds to a Pavlovian situation, and is more prevalent in Bali, for example, than in the United States (12).

These brief descriptions of some possible alternative values and assumptions underlying different expressions of activity call attention to the necessity for using several dimensions to explain any specific behavior. In speaking of decision-making and learning, for instance, allusions to perception of the self, perception of the world, and motivation were required.

Social Relationships

A chief characteristic of social relationships among Americans of the middle class is equality (Williams, 14). Its ramifications are so profound that it should be considered an assumption of American culture, even though as an expressed value there is no uniform application to all segments of the society. In nearly every other culture there is a much greater emphasis on inequality of persons (Arensberg and Niehoff, 15). To assume that everyone is equal and should be treated alike is considered, in some cultures, to be demeaning to the individuality of the person. Inequality underlies social conventions and etiquette and clearly defined reciprocity among persons engaged in social interactions.

In American culture, social conventions tend to be more informal and social reciprocities much less clearly defined. For example, equality removes the need for elaborate forms of social address, since one of the functions of formality is to call attention to the participants' respective status and ascriptions. Americans usually tend to ignore these qualities of social intercourse, quickly achieve a first-name basis with others, and conduct both business and social intercourse with directness and informality. Unlike members of other cultures such as the Thai, Americans prefer direct contact with others in either business or social affairs, and hence seldom have need of a third man, an intermediary, as do the Thai.

Despite the emphasis on equality and informality, there is an element of depersonalization in relationships between Americans. Americans have many friends, but these are often associated with a given situation or time (C. Kluckhohn, 16). Furthermore, the word "friend" may serve to describe anyone from a passing acquaintance to a lifetime associate. American friendship differs from that found in many parts of the world where an individual may have few friends but is likely to have a total, rather than a selective, commitment to them. Individuals may be disinclined to share a friend with other friends, since both the quality of friendship and the number of friends is considered limited and hence not to be squandered (Foster, 17).

Americans tend to be relatively impartial and objective in the conduct of social relations, compared to the personalized interactions found in many parts of the world. Examples of the former are large charitable fund-raising efforts, objective standards of promotion, and the uneasiness about gift-giving in business; examples of personalized interaction are found in the paternal benevolence of the Japanese and Latin Americans, personal leadership of the Latin caudillos, and the nepotism endemic to Asia, Africa, and Latin America.¹

The depersonalized predisposition of Americans combines with other values to nurture competition in which each individual strives for his own personal goals. For example, "joshing," "one-upmanship," quick repartee, and a "friendly suggestion" are subtle forms of competition. Although this sort of behavior in interpersonal relations usually seems innocuous to Americans, such actions are perceived as subtle coercion in many other cultures (Wax and Thomas, 18).

Motivation

A third category of assumptions and values is motivation. Achievement is generally agreed to be a chief motivating force in American culture. It is the force which gives the culture its quality of "drivenness" (Henry, 19). An American's identity, and to a large degree his worth, is established by his accomplishments; a man is what a man achieves. Furthermore, his accomplishments should be objective, visible, and measurable, since the culture does not readily provide a means of evaluating and knowing the self except through external performance.

Relative to members of many other societies, Americans do not attribute particular meaning to place of birth, family, heritage, traditional status, or other prescriptive considerations which can be used to define the self. American culture, then, emphasizes personal achievement through externally documented accomplishments while many other societies emphasize ascription with its attendant concern for the traditionally fixed status of the individual (Potter, 20).

An American's investment in material and visible signs of success leads one to inquire about American notions about failure. For Americans the concept is difficult to accept and hence usually avoided or rationalized. A typical response is to rationalize the failure as an inevitable part of the learning process leading to future accomplishment, or to regard the situation as the fault of others.

Perception of the World

A dominant perception in American culture assumes that the world is material rather than spirit (or idea, essence, will, or process), and should be exploited for the material benefit of man. This perception implies a clear separation between man and all other forms of life and Nature. Man's quality of humanness endows him with a value absent in other forms of life; he is unique because of his soul. Nature and the physical world, although often referred to as living, are conceived as material and mechanistic.

This perspective is distinct from assumptions held in some other parts of the world (and variant assumptions in American culture) that man is inseparable from his environment and that he should strive for harmony with it (15). Nature is perceived as alive and animistic; animals and even inanimate objects

¹In describing American social relations as "depersonalized" and those of others as "personalized," no invidious comparison is intended. Trust, good will, and acceptance of other people for what they are, for example, are American characteristics but they need not be personalized in their expression. Distrust and suspicion are quite personal and more common in many other parts of the world than in the United States.

have their own essence. Hence no clear dividing line separates man from plants, rocks, rivers, and mountains. Consequently, man should strive for unity and integration with nature and the physical world rather than attempt to control these forces.

Control and exploitation of the environment is closely associated with the concept of progress, a notion relatively absent in many parts of the world. There is a prevalent notion among Americans that a person and especially an organization must progress or cease to exist; one cannot "stand still" and continue to function.

Bound up with the idea of progress and achievement motivation in American culture is a feeling of general optimism toward the future. Most Americans feel that through their efforts a better future can be brought about which will not compromise the welfare and progress of others (Kluckhohn and Kluckhohn, 21). There is enough for everyone. Such a system of values and assumptions, of course, receives repeated reinforcement, since Americans live in a country with an expanding economy and resources. These assumptions contrast with the concept of "limited good" and fatalism found in many parts of the world (17).

The American's high valuation of material aspects of the world, in combination with values associated with the self as an individual, form cultural underpinnings for a strong and salient cultural concept of private property.

Perception of Self and the Individual

The concept of an individualistic self is an integral assumption of American culture so deeply ingrained that Americans ordinarily do not question it. They naturally assume that each person has his own separate identity. However, since this cultural assumption is implicit and generally outside the awareness of the American, the nature of his self-identity is somewhat elusive. His relatively diffuse identity is, in part, a consequence of the absence of clear ascriptive classifications such as "caste" and "class" found in other cultures (Mead, 22).

Stress on the individual begins at a very early age when the American child is encouraged to be autonomous. It is an accepted value that a child (and adult) should be encouraged to make decisions for himself, develop his own opinions, solve his own problems, have his own possessions. The concepts of freedom of choice and self-autonomy are, however, moderated by social control mechanisms in the form of expectations that the individual will choose as others wish him to choose.

An important consequence of this emphasis on the individual is that the American tends to resist formal authoritative control (Gorer, 23). The concept of ideal authority for the American is one that is minimal and exercised informally by means of persuasion and appeals to the individual, rather than by coercion or by expectation of compliance to tradition, as is the case in many other cultures.

Another consequence of the American's individuality is that his self-concept is not easily merged with a group. To him any group, ranging from a small one to the nation, is conceived as a collection of individuals. He resists becoming "lost in a group" or is concerned about the non-person emphasis of a cause or abstract ideology.

This avoidance of non-person is tied to the fact that in the American culture ideas and concepts are typically made meaningful by using the individual as a point of reference. For example, concepts of dignity and human nature are most likely to take the form of self-respect, personal needs, and individual goals.

With emphasis on concrete and self-referring terms, Americans are uncomfortable when referring to concepts that do not have a clear reference to the individual.

Another dimension of the perception of self and others revolves around the wholeness-divisibility of the person and is closely related to the American's emphasis on objectives rather than personal relationships. Americans tend to fragment personalities. An American does not have to accept another person in totality to be able to work with him; he may disapprove of the politics, hobbies, or personal life of an associate and still work effectively with him. An individual with ascriptive motivation, however, tends to react to others as total or whole persons. Consequently, he often cannot work with or cooperate with a person of different religion, belief, or ethical code.

Action, thoughts, and intent are separately evaluated in the American culture. For example, the individual cannot be held legally liable for harboring undesirable thoughts. In parts of the non-West (perhaps China is the best example), there is no such clear differentiation. Instead action, thoughts, feelings, and intents are synthesized in a total assessment of the person. Thus an indication of "wrong thoughts" would be grounds for censure even though undesirable action did not actually occur.

Generalized Cultural Forms

When the assumptions underlying cultural thinking are pervasive and lack substantive reference, they are probably best called cultural forms or form cognitions. While forms tend to merge with values and assumptions, they are discussed separately for conceptual clarity even though the distinction is not emphasized in training.

For Americans, the cultural form of time may usually be regarded as lineal. American concepts of planning, progress, preventive measures in health and technology, and orientation to the future may be seen to be associated with a lineal concept of time. Progress, for example, is closely associated with the view that time flows in one direction, that of the future. "You've got to keep up with the times" is an American expression which illustrates the association. This concept of time is eminently suited to a rational view of the world. One can distinguish various events in time and note their relationship by calling the preceding moment "the cause" and the next one "an effect." Although this description is oversimplified, it identifies the American predilection for seeing the world in concrete and delimited cause-and-effect sequences and provides a firm foundation on which to base the dominant American beliefs in accomplishment, in one's ability to master one's environment.

Concepts concerning contiguity and location may be regarded as aspects of space, a second kind of cultural form. Concepts of using space show important cultural differences. It is clear that different cultures deploy living and working areas in different patterns. Some cultures, such as the Chinese, have a strong sense of territorialism; in other cultures, the American for instance, territorialism is less highly developed, and one might expect it to be nearly absent in some nomadic cultures. Spatial displacements of persons in face-to-face interactions are also noticeably and measurably different from culture to culture (Hall, 24). At the most abstract level, formal causes and correlational thinking may be considered as expressions of spatial relations. Although they occur in the American culture, they are not nearly so frequent as for example, in the Chinese culture (Nakamura, 25). Temporal concepts, and efficient and material causes, are usually preferred by Americans.

A third kind of cultural form refers to the definitions of essence and energy. Primarily, for Americans, the universe is conceived as matter, or as things; in contrast, some people from Sub-Saharan Africa view the universe as consisting of a network of living forces. In their perspective, force is synonymous with being (Jahn, 26).

The relational form, a fourth possible kind of form cognition, is the one which perhaps most clearly refers to process rather than to structure. A basic issue underlying human behavior is the relationship between the empirical world and the cognitive world. If the relationship is isometric, the empirical world can be apprehended directly. Americans tend to comprehend what they observe through intermediate explanatory concepts, whereas many non-Western people are more likely to apprehend experience directly through intuition and spontaneous reaction, without a need for "explanation" in the Western sense of the word.

The American is more likely to take a relativistic and pragmatic position than to assume the existence of a directly knowable reality. Another aspect of this contrast in relational forms is manifest in the American emphasis on analysis and logic as modes of expression rather than esthetic appreciation or sensitivity (Northrop, 27).

Other cultural forms are related to those described above: for example, the American tendency toward inductive thinking and quantification in contrast to deduction and inherent qualities. Another important contrast is that between comparative judgment, which is typically American, and absolute judgment (i.e., comparison against an abstract standard).

A final additional example, the concept of limits, should be mentioned because of its importance in the literature and in the development of the simulation. Foster (17) has described a chief distinction between peasant and Western societies in terms of the concept of "limited good." The concept, in the most general sense of a cultural form, refers to the tendency to conceive of the world in limited rather than expansive terms. The assumption of unlimited good, in American culture, underlies achievement motivation, in which the individual sees his opportunities and achievements as relatively unlimited and at least partly determined by his efforts. The value configuration is frequently referred to as "effort-optimism," a key concept in understanding American behavior. In peasant societies the basic motivation is ascription, maintenance and entrenchment of status, privileges, and prerogatives (17, 20). Underlying this value is the concept that the good in the world is limited, and that gains for one individual are necessarily obtained at the expense of others. Foster describes the "image of the limited good" as:

. . . one in which all of the desired things in life such as land, wealth, health, friendship, and love, manliness and honor, respect and status, power and influence, security and safety, exist in finite quantity, and are always in short supply Not only do these and other "good things" exist in finite and limited quantities, but in addition there is no way directly within peasant power to increase the available quantities. It is as if the obvious fact of land shortage in a densely populated area applied to all other desired things: not enough to go around. "Good," like land, is seen as inherent in nature, there to be divided and redivided, if necessary, but not to be augmented. (17, p. 296)¹

¹Permission to quote this copyrighted material has been granted by the *American Anthropologist*.

This concept of limits has far-reaching consequences in all aspects of the cultural pattern.

A more comprehensive outline of American values and assumptions and the more generalized cultural forms is presented in the section describing the Contrast-American concept developed for the simulation exercises (see Table 1).

DERIVATION OF CONTRAST CULTURES

The simulation model calls for American values, assumptions, and cultural forms to be represented in the spontaneous role-playing of the American trainee. The behavior of the person playing the advisor's counterpart, on the other hand, is only semispontaneous, since he is to be trained to respond in a way that will reflect contrasting values, assumptions, and cultural forms. The strategy required that a conceptual profile which would provide a plausible contrast to the American profile be developed as a guide for the auxiliary. These profiles are summarized in Table 1.

Table 1
Summary of Cultural Assumptions and Values^a

American	Contrast-American
1. Definition of Activity	
a. How do people approach activity?	
(1) concern with "doing," progress, change ----- external achievement -----	"being" spontaneous expression
(2) optimistic, striving -----	fatalistic
b. What is the desirable pace of life?	
(1) fast, busy -----	steady, rhythmic
(2) driving -----	noncompulsive
c. How important are goals in planning?	
(1) stress means, procedures, techniques -----	stress final goals
d. What are important goals in life?	
(1) material goals -----	spiritual goals
(2) comfort and absence of pain -----	fullness of pleasure and pain
(3) activity -----	experience
e. Where does responsibility for decisions lie?	
(1) responsibility lies with each individual -----	function of a group or resides in a role (<i>dual contrast</i>)
f. At what level do people live?	
(1) operational, goals evaluated in terms of consequence --	experiential truth
g. On what basis do people evaluate?	
(1) utility (does it work?) -----	essence (ideal)
h. Who should make decisions?	
(1) the people affected -----	those with proper authority
i. What is the nature of problem-solving?	
(1) planning behavior -----	coping behavior
(2) anticipates consequences -----	classifies the situation
j. What is the nature of learning?	
(1) learner is active (student-centered learning) -----	learner is passive (serial rote learning)

(Continued)

Table 1 (Continued)
Summary of Cultural Assumptions and Values

American	Contrast-American
2. Definition of Social Relations	
a. How are roles defined?	
attained -----	ascribed
loosely -----	tightly
generally -----	specifically
b. How do people relate to others whose status is different?	
(1) stress equality -----	stress hierarchical ranks
minimize differences -----	stress differences, especially to superiors
(2) stress informality and spontaneity -----	stress formality, behavior more easily anticipated
c. How are sex roles defined?	
similar, overlapping -----	distinct
sex equality -----	male superiority
friends of both sexes -----	friends of same sex only
less legitimized -----	legitimized
d. What are members' rights and duties in a group?	
(1) assumes limited liability -----	assumes unlimited liability
(2) joins group to seek own goals -----	accepts constraint by group
(3) active members can influence group -----	leader runs group, members do not
e. How do people judge others?	
(1) specific abilities or interests -----	overall individuality of person and his status
(2) task-centered -----	person-centered
(3) fragmentary involvement -----	total involvement
f. What is the meaning of friendship?	
(1) social friendship ----- (short commitment, friends shared)	intense friendship (long commitment, friends are exclusive)
g. What is the nature of social reciprocity?	
(1) real only -----	ideal and real
(2) nonbinding (Dutch treat) -----	binding
(3) equal (Dutch treat) -----	unequal
h. How do people regard friendly aggression in social interaction?	
(1) acceptable, interesting, fun -----	not acceptable, embarrassing
3. Motivation	
a. What is motivating force?	
(1) achievement -----	ascription
b. How is person-person competition evaluated?	
(1) as constructive, healthy -----	as destructive, antisocial
4. Perception of the World (World View)	
a. What is the (natural) world like?	
(1) physical -----	spiritual
(2) mechanical -----	organic
(3) use of machines -----	disuse of machines
b. How does the world operate?	
(1) in a rational, learnable, controllable manner -----	in a mystically ordered, spiritually conceivable manner (fate, divination)
(2) chance and probability -----	no chance or probability

(Continued)

Table 1 (Continued)
Summary of Cultural Assumptions and Values

American	Contrast-American
c. What is the nature of man?	
(1) apart from nature or from any hierarchy -----	part of nature or of some hierarchy (<i>dual contrast</i>)
(2) impermanent, not fixed, changeable -----	permanent, fixed, not changeable
d. What are the relationships between man and nature?	
(1) good is unlimited -----	good is limited
(2) man should modify nature for his ends -----	man should accept the natural order
(3) good health and material comforts expected and desired -----	some disease and material misery are natural, expectable
e. What is the nature of truth? goodness?	
(1) tentative (working-type) -----	definite
(2) relative to circumstances -----	absolute
(3) experience analyzed in separate components dichotomies -----	experience apprehended as a whole
f. How is time defined? Valued?	
(1) future (anticipation) -----	past (remembrance) or present experience (<i>dual contrast</i>)
(2) precise units -----	undifferentiated
(3) limited resource -----	not limited (not resource)
(4) lineal -----	circular, undifferentiated
g. What is the nature of property?	
(1) private ownership important as extension of self -----	use for "natural" purpose regardless of ownership
5. Perception of the Self and the Individual	
a. In what sort of terms is self defined?	
(1) diffuse, changing terms -----	fixed, clearly defined terms
(2) flexible behavior -----	person is located in a social system
b. Where does a person's identity seem to be?	
(1) within the self (achievement) -----	outside the self in roles, groups, family, clan, caste, society
c. Nature of the individual	
(1) separate aspects (intent, thought, act, biographical background) -----	totality of person
d. On whom should a person place reliance?	
(1) self -----	status superiors, patron, others
(2) impersonal organizations -----	persons
e. What kind of person is valued and respected?	
What qualities?	
(1) youthful (vigorous) -----	aged (wise, experienced)
f. What is the basis of social control?	
(1) persuasion, appeal to the individual -----	formal, authoritative
(2) guilt -----	shame
Generalized Forms	
a) lineal ----- (time)	nonlineal
b) efficient and material cause-and-effect thinking ---- (space)	formal causes, correlative thinking
c) material, substantive ----- (essence and energy)	spirit, energy
d) operationalism (implied observer) -----	direct apprehension or formalism (<i>dual contrast</i>)
e) induction -----	deduction or transduction (<i>dual contrast</i>)
f) judgment by comparison -----	judgment against an absolute standard
g) world stuff expansive (unlimited good) -----	world stuff restricted (limited good)

^aThe authors wish to acknowledge the contributions of Dr. Jasper Ingersoll, Department of Anthropology, Catholic University, to the development of this table.

Contrast-American culture, it should be remembered, represents divergent positions on the cognitive dimensions on which the American cultural profile has been plotted. In most instances, American culture may be described as lying at one extreme of the dimensions used, and the derivation of the contrast is relatively straightforward. On a few important dimensions, American culture appears to have more than one contrasting position. In these cases it was not always clear whether the three cultural positions in question could be plotted at points along a single dimension. A number of such "dual contrasts" appear in Table 1.

To accommodate derivations of this sort, two similar but partially distinct cultures were delineated. These are referred to as Contrast-American I and Contrast-American II. The nonshared contrasts making up these roles are described in Table 2. They can be seen to represent either variations on a dimension in which the American position is in the middle, or more complex contrasts (e.g., deduction vs. concrete, Chinese-style transduction vs. American induction; theoretical comprehension vs. direct apprehension vs. American operationalism) (26, 28) which do not easily fit on a single continuum.

Table 2
Differences Between Contrast-American Cultures I and II
Relative to American Culture

Measure	Contrast-American Culture I	Contrast-American Culture II	American Culture
Values and Assumptions	Delocalized group decision-making; integration (harmony) with natural world; euphoric attitude toward existence and reverence for life; past and future seen as expansions of present; commitment to concrete and phenomenal objects, syncretism of beliefs, a more complete unity always sought; existence is indeterminate.	Decision-making is a function of roles; self hierarchically differentiated from others by means of role; self linked to past via traditions; predatory, aggressively hedonistic approach to present existence; world is an abstraction known only through rules and tradition (formalism); people and things perceived as an explicit hierarchy; existence is an epiphenomenon.	Decision-making and responsibility localized in self; self separate from others and from natural world; group is not a unity but an aggregate of individuals; optimistically change-minded; commitment to operationalism, action, and mastery over environment; lineal inductive thinking, geared to anticipation of consequences; world perceived mechanistically as series of problems in search of solutions; non-esthetic, comparative, and relativistic judgment of events; totality of world stuff apprehended as unlimited; existence is action (doing).
Behavioral Characteristics	Ego-constriction (self-control, little eye and no body contact, physical aloofness, subdued tone).	Ego-expansiveness (intense eye and body contact, physical intimacy, hyperbole, exaggerated tone).	Moderate ego-expressiveness (moderate eye contact, minimal body contact, moderate distance, moderate tone).

Because there seem to be inherent natural forms of cultures, certain cultural concepts have a better fit with some concepts than with others. Contrast-American Cultures I and II, as depicted in Table 2 (only nonshared contrasts are shown), represent partially arbitrary choices, since alternative positions could have been assembled according to several permutations. Nevertheless, they were put together in the described pattern because they seemed to form a plausible configuration of values and assumptions. This consideration is

important in our role-playing innovation because credibility is necessary for full trainee involvement.

To further assure the plausibility of the two Contrast-American roles, certain appropriate behavioral characteristics were designated as part of the auxiliaries' roles. These also are outlined in Table 2. It should be noted that such behavioral characteristics, although easily observable, are often difficult to analyze in terms of underlying assumptions and values. Perhaps this is because their very specificity links them to events and situations in a way that makes generalization hazardous. In any case, such stereotyped and easily observable behaviors are judged to be not so adversely intrusive in intercultural functioning as the more subtle, pervasive, and often unrecognized assumptions and values; the latter have accordingly received more attention in this work.

DEVELOPMENT OF ROLE-PLAYING SCENES

Illustrative Content of Scenes

Descriptive background material (Appendix A) was developed to provide the role-player with a temporal and situational context. This included a briefing with general information about the country and the work situation and experience of his predecessor. The briefing was purposely kept sketchy to allow the trainee to project himself into the situation and thereby provide maximum freedom in defining his own role.

The trainee takes the role of an American advisor who has been assigned to assist a non-Western auxiliary on development projects in the counterpart's country. He believes that the auxiliary is also a role-player who has received instructions similar to his own. The trainee is provided, within a role-playing context, with some comments from a predecessor who conveys a picture of delayed progress in the development projects without portraying etiological factors or localizing blame. The trainee is left to interpret the predecessor's comments any way he wishes. While the predecessor's comments reflect a frequent American stereotype of non-Western counterpart, the trainee may minimize or reject the stereotype by attributing it to the misperceptions of the frustrated predecessor.

In addition, brief background information was written for six scenes which were selected for their likelihood of eliciting typical American behavior. The information in each scene was recast and rewritten until it reliably evoked the culturally derived behavior necessary to bring about the desired cultural contrasts in values and assumptions. Each scene was designed to highlight select predispositions judged critical for overseas performance. The scenes were intended to be given in a sequence, with each scene built upon the overall background material and occurrence of the preceding scene. Some success, however, has been achieved in using the scenes individually.

The following descriptions developed for a military advisor should provide a better understanding of the nature of the scenes and the interactions that typically flow from each. Titles refer to manifest content rather than the underlying values and assumptions that are likely to be elicited.

Initial Meeting

The first scene is concerned with how the American orients himself vis à vis his counterpart. His approach will depend upon whether he assumes that Western expectations or his counterpart's expectations governing business

meetings will apply. The counterpart will be expecting a highly personalized, nonbusiness approach from his new advisor; he will be interested in knowing about the advisor's background and family and personal life so as to be able to define socially the man he is meeting. Only after such social definition will the counterpart engage in "business" talk. Further, the business talk itself must also be open-ended and well immersed in the conversation if an impression of attempting to restrict the counterpart's freedom of action is to be avoided. Attempts to structure the situation quickly are characteristic of Americans in their business dealings, but embarrass the counterpart and may be viewed as an attempt at intimidation or coercion.

Thus the scene is designed to elicit contrasting notions of what the advisor and counterpart expect of each other. Whereas the American is likely to be busy mobilizing his resources to give effective advice and accomplish something "meaningful" (often read to mean "tangible"), the counterpart is pre-occupied with discharging his obligation to show proper honor and respect to his advisor. Such a frame of reference is not totally foreign to the American, but it is definitely considered secondary to the requirement of accomplishing something. Similarly, for the counterpart the idea of accepting and utilizing American advice is certainly present, but it is less important than his perceived duties of respect and honor.

"Grass Roots" Support

In this scene the American advisor is faced with the necessity of developing grass-roots support for a project. The scene elicits attitudes toward sources of authority and conditions for morale. The question of the needs of the people and the desirability of their commitment and support typically arises. The notion that open discussion and public commitment always have a salutary effect is a typically Western one. Involved is the basic assumption that not only good will, but somehow even truth, will always emerge from the democratic process.

The counterpart does not share this assumption. For him truth, like wisdom, does not emerge spontaneously among groups of people but resides in certain social positions or is a function of a state of grace. The counterpart's truth is absolute, in distinction to the relative, working-type truth (often labeled "consensus") from which the pragmatic American typically operates.

Attitudes toward authority also are involved in this scene. The counterpart believes that he, as the leader and the elite of the community, knows what the people want. For him action emanates from authority. He interprets the American's interest in seeking opinions from the people as demeaning to his position.

Publicity

The American advisor is told in the background materials that a first project of his has been successful and that he might produce further action in the community and in outlying areas if this early effort is publicized. Underlying these suggestions are two American beliefs: that publicity is ipso facto a desirable thing, and that if one thing is good then two ought to be better.

Concerning the first belief, the idea of advertising, promoting, or selling a desirable product is likely to seem quite appropriate to an American. The counterpart, however, feels that goodness speaks for itself, as with the goodness of one's wife or one's family heirlooms, and that publicity is superfluous and even denigrating to valued possessions.

The second contrast is based on the optimistic American view that good is unlimited; if one has success, then one ought to try for a second success. Man's opportunities to change the world are viewed as relatively unlimited. In contrast, the counterpart believes that the good in the world is relatively limited. One success does not necessarily imply the possibility or desirability of a second success.

Private Property

This scene revolves around the issue of a piece of unit equipment bought with American funds (a movie projector) that has been offered as a personal gift by the counterpart to his superior. It illustrates contrasting cultural notions about property and gift-giving.

For the American a clear distinction is made between public and private property, just as a clear distinction is made between personal and public life, work and play, and "my time" and "their time." To the counterpart, however, the public-private distinction seems artificial and arbitrary. Thus he is not pre-occupied, as in the American, with "an honest day's work," or with guarding his "private life." He is committed and intensely personal in all the roles he plays. Consequently, depersonalized attitudes toward work or alienation from one's role reflect on how he is judged as a person and diffuse his self-identity.

The notion of personalized work relationships clarifies the meaning of gift-giving among co-workers in many foreign cultures, a further important consideration in this scene. To the counterpart, the gift is an expression of personal feeling or esteem for another worker, often a superior. Gift-giving exists among Americans, of course, but it usually is restricted to "private" relations or else becomes an impersonal and ritualized practice reserved to special occasions.

Leadership

In this scene the American advisor is confronted with a situation in which leadership in his counterpart's unit is of poor quality. He is encouraged to try to do something about it. The ensuing discussion about leadership training highlights contrasting culturally determined attitudes toward leadership. For the American, leadership, like other traits, is partly a matter of temperament and personality, but also partly something which can be taught and learned or acquired through experience. The existence of leadership training schools and leadership occupational categories in American military organizations attest to the general acceptance of the latter idea.

For the counterpart, however, leadership is not an individual trait or an impersonal attribute but a quality residing in a network of rights and duties which define a relationship or set of relationships. These relationships differ markedly from the impersonalism and fractionalization which typify the line-staff relation so basic to Western management theory. For the counterpart, work relationships involve the total behavior between the persons; a leader is not just a coordinator of certain work activities but a wise master or judge whose authority extends to all areas of life. Under these conditions a person could hardly conceive of himself as learning leadership principles or improving his leadership skills since (a) any training of this sort would imply that his wisdom was less than sufficient and (b) isolation of such principles or skills would represent an idea that was alien or even dangerous, since it would imply that such behavior could exist unregulated by traditional relationships.

Health

The background information for this scene provides a brief description of poor health conditions in an underdeveloped country. Both the American advisor and his foreign counterpart can be expected to display interest in health and welfare measures, but their emphasis would be far different. For the American, physical health is of overwhelming importance. In addition, his scientific sophistication alerts him to symptoms and causes and effects of a wide range of diseases. While his culturally sanctioned interest in unsanitary conditions is generally medically sound, his need for cleanliness often goes beyond reasonable demands for health.

For the counterpart, however, physical health lies in the overall perspective of both bodily and spiritual well-being. Overemphasis on physical health or creature discomforts does not do justice to the spiritual aspect of man, which needs as much and probably more attention than the body. For the Contrast-American I, such symptoms of spiritual malaise as an overly aggressive or individualized orientation, impurity of heart, or disharmony with man or nature are often considered more critical than physical disease. For the Contrast-American II, lack of total confidence, acknowledgment of chance errors, and psychological alienation from ancestors or relatives would be judged as problems of the spirit capable of producing complete social and physical incapacity.¹

Still another contrast involved is in the use of a particular form of reasoning to arrive at "scientific" conclusions. The Westerner tends to think in self-contained lineal chains of cause and effect—for example, "I am sick because I caught a virus." The Contrast-American position embraces a myriad of multiple contingencies coexisting in one's life space: physical, social, and psychological. Thus, the Contrast-American will simultaneously hold "I am sick because my body has been invaded, because I had an argument with my wife last night, because the warmth in the air has gone, and because my family and ancestors have left me with a residue of conflict and disharmony." One can see from this example that sufficiently detailed identification of "scientific" multiple causes can merge into a "nonscientific" nonlinear phenomenology.

Typically, this scene also dramatizes the inductive orientation of the American; that is, most trainees tend to describe how they "walked about the area" and "observed" bad health practices and signs of disease among the people. The American tends to assume that marshalling of evidence will convince the counterpart of the necessity for remedial action. An alternative approach, which few American participants have been observed to take, would be deductive—that is, to deduce possible categories for classifying sources of disease (e.g., physical, social, and perhaps even supernatural).

Some Considerations in Scene Development

Trainee Involvement

As previously emphasized, the primary objective of the scene is spontaneously to elicit typical American behavior on the part of the trainee so that a dramatic contrast in selected assumptions and values will occur. It is important that this be done in a way that will not destroy the interaction between trainee and auxiliary. To achieve these ends, the scenes selected and the background material for the scenes had to be constructed in such a way as to make

¹Among Westerners, an analog for diseases of the spirit which can lead to physical illness—a deviant cultural interpretation of disease etiology for them—would be found under the category of "psychosomatic illnesses."

the content plausible, disguise the underlying purpose of the exercise, and create a situation requiring the trainee to work toward an objective.

The apparent, or manifest, content of the scenes, representing interaction situations in advisory positions abroad, was developed from raw material elicited through interviews with returned advisors. In the case of military personnel, these advisors had been assigned to various parts of the world to Military Assistance Advisory Groups (MAAGs), Missions, and Mobile Training Teams.

Once the plausibility of scene material (from the point of view of the participating trainee) was established, its underlying or latent purpose of eliciting underlying cultural predispositions had to be assured. This purpose requires the scene developer to judge the state of sophistication of the trainee population with respect to the American assumptions and values under consideration. That is, he has to be able to predict to what extent Americans know they are American in different areas of thinking, so as to exclude content the trainee is likely to regard as acceptable and readily recognized differences.

Given a plausible role-playing scene and disguised underlying purpose, one further refinement in scene development is necessary for successful simulation of intercultural phenomena. A technique must be devised which will facilitate the orderly progress of the role-playing from behavioral givens of the situation (which are necessary for warm-up and other mechanical functions) to more personally meaningful cultural material. We found that providing a concrete problem on which the trainee must enlist the counterpart's cooperation satisfied this last requirement. For example, a specific problem of lifting a ban on large gatherings in the counterpart's village establishes a link to the more crucial issue of instituting open forums for free exchange of views, which then precipitates the desired value contrast. Or, another example, the requirement of showing a leadership film leads to a discussion of leadership training, which precipitates a contrast in notions of the origin and nature of leader-follower relations.

If the rationale of the scene is transparent, or if the manifest content is irrelevant to his interests, or if the role-playing task is undemanding, the trainee may not behave spontaneously and with sufficient involvement to bring about a confrontation of underlying values and assumptions. Where training impact is concerned, a detached intellectual discussion of cultural values is decidedly less effective than the development of awareness of the assumptions underlying one's own behavior as the latter unfolds spontaneously in a realistic situation. It is only through the commitment demanded by a "realistic task-oriented problem" situation that many trainees will confront and re-evaluate long-held assumptions and values about the nature of people and of the world.

An Example of Scene Development

How a particular scene was developed to fulfill these criteria is illustrated by the following discussion. From interviews with returning military advisors, it was ascertained that host-country counterparts frequently appropriated unit equipment for private use. This was, by their own admission, frustrating for many American advisors. A scene written around the misuse of unit equipment can be expected to evoke from the American trainee a considerable sense of outrage and a vigorous defense of the distinction between public and private property. This emotional investment energizes the role-playing and sets the stage for a meaningful confrontation with the Contrast-American position: that public and private property, relatively speaking, are of a similar order and not readily distinguishable.

The remaining requirement is that a concrete problem be presented to the trainee. The background materials explain that a movie projector, belonging to the host country, but obtained with U.S. funds, was given to a senior officer by the counterpart. The instructions specify that it is desirable, although not critical, that the projector remain available to the advisor and his successors, and that the advisor had in fact planned to show several good military films.

These instructions provide a mild incentive to the trainee to pursue certain lines of action which might lead to the return of the equipment, but he is not given legal authority to demand the projector or critical requirements that it be returned. The net effect of this tactic is to initiate a discussion under the impetus of the trainee's internalized cultural predispositions, rather than under an externally induced situational motivation.

Reducing Cultural Variation

In addition to attempting to bring out selected value- and assumption-contrasts, each scene had to be developed to maximize the probability that the trainee would respond from a modal American frame of reference rather than in the form of a cultural variation. This was accomplished primarily by avoiding situations which elicit behavior that is atypical of the main stream of American patterns of thought and by creating personal involvement through plausibility of content, nontransparency, and the challenge of a problem. Success in delimiting the phenomena that occur obviates the embarrassment of cultural variations while attending to the cultural commonalities that are the main focus of the present training.

Variation in Settings

In the introductory background to the scenes, the identities of the participants—the American advisor and his foreign counterpart—are established. The roles and the setting can be varied: several settings have been developed, including one for military advisors concerned with civic action, one for advisors in combat units, one for Peace Corps Volunteers, and one for business managers. They differ only in incidentals which define the identity of the participants. Thus in a military plot Major Khan is the foreign counterpart, whereas in a business plot Major Khan becomes Mr. Khan, who is identified as a local official of the government. The versions do not differ with respect to the contrast of values and assumptions they elicit.

This flexibility is illustrative of a point which is made repeatedly throughout this report: the simulation exercise is an attempt to simulate intercultural phenomena at the interpersonal level, not manifest behavior concerned with specific professional, military, business, or other organizational or bureaucratic problems.

The Role and Performance of the Auxiliary

Since the American role-player has the initiative in the simulated encounter, the burden on the counterpart is a relatively heavy one; therefore, a fairly extensive training program for role-playing auxiliaries must be undertaken. The auxiliary must assess the stimuli provided by the trainee in terms of the underlying values and assumptions. Once the trainee's behavior is properly categorized, the auxiliary must mentally invoke the appropriate contrasting value and assumption and then improvise a suitable response. The auxiliary's

task is made considerably easier, of course, if the range of values and assumptions which the American reflects are delimited by the background material.

In addition, the actions of the auxiliary must seem realistic to the trainee even though the content of the Contrast-American culture is synthetic. The auxiliary is aided by the trainee's perception that the auxiliary, like himself, is a spontaneous role-player who is similarly committed to a common task.

The auxiliaries used during the development of these exercises were foreign-born non-Western students, who were attending U.S. universities. Their appearance could not be readily typed as any one ethnic group or nationality. The training of the auxiliaries initially involved sensitizing them to their recent Western cultural conditioning. Thereafter, it required semitherapeutic assistance to identify and creatively use their own non-Western values and assumptions, and guidance in suiting them to the synthetic values and assumptions they were to assume. They were then ready to add to their repertoire the additional cognitive requirements demanded by their respective Contrast-American roles. The use of non-Western auxiliaries also has the advantage of lending plausibility to the exercises. In addition to their physical appearance, their natural mannerisms, mode of moving, and linguistic (paralanguage) characteristics contribute to realism.

An additional demand on the auxiliary is that he refrain from creating rivalry by attempting to "win" the role-playing performance by making life difficult for the role-playing trainee. During the interaction, rivalry may occur, but it should be derived from the difference in values and assumptions rather than from the structural aspects of the role-playing situation. This situational competition stems largely from defensiveness and insecurity on the part of the auxiliary before he has fully absorbed the Contrast-American frame of reference. Once he feels secure in his role, much of the situational rivalry disappears. "Feedback" and guidance on this aspect of his performance and reassurance that "winning" the interplay is not the criterion of effective performance are helpful.

Example of a Simulation Dialogue

The following illustrative excerpt from one of the simulations is provided to give the reader a better appreciation of the kind of interaction that is likely to occur.

One of the scenes was designed around the topic of leadership. During one of the simulations of this scene, Captain Smith, the American role-player, tried to persuade the Contrast-American I, Major Khan, to take measures to improve leadership in his battalion. Captain Smith found fault with some of the techniques utilized by some of Major Khan's second lieutenants.

American: And I know that . . . if they are allowed to continue, then the efficiency in the duties that they're performing, or their soldiers are performing, will be reduced.

Contrast-

American: What kind of duties are they performing which are not good?

A: They have an inability, I think, to communicate with the noncommissioned officers and to properly supervise the accomplishment of the task. They almost have the attitude that this work is the type of work which they should not take part in; they should merely stand by and watch. I know you have a big respect for General George Washington and I

should point out this example. One time during the War for Independence, there was a sergeant with some artillery pieces which were stuck. He was standing by, very neat and clean in his uniform, cajoling his soldiers as they looked at him, and shouting for them to push harder to get this cannon out of the mud. General Washington rode by on his horse, noticed this situation and stopped. His rank was not showing, for he had a large cape on over his uniform; it was rather cold that day and had been raining. He asked the sergeant what the problem was, and the sergeant told him, "Sir, the soldiers cannot get this cannon out of the mud." Then General Washington dismounted from his horse, walked over and assisted the soldiers in pushing the cannon out. Afterward he walked over to the sergeant and said, "Sergeant, tell your commander that General Washington has assisted your men in pushing the cannon from the mud."

CA: Yes.

A: He was willing to assist his men and do anything that they were doing if it were really necessary.

CA: Perhaps if he were not in a disguise, not wearing a cape, if he were in his uniform of a general, he would never have come down from (dismounted from) the horse. He would have waited there as a general.

A: I think—

CA: —people would have gotten extra energy while pulling that cannon, they would have looked at him, that big, tall, towering general sitting on a horse, they would have looked at him and derived all inspiration and strength from him, and then pulled out the cannon without his assistance. His very presence would have been enough.

A: Perhaps this may have taken place. However, I think the point that he was trying to make, the same point that I'm trying to make, sir, is that many times the presence of an exalted ruler or an officer is adequate, but other times it is not. As you have pointed out on several occasions, I have assisted with my hands on this project, because the situations there, I thought, just required help. I don't think that it lowers the opinions of soldiers, of officers in the eyes of soldiers, if the officer gives them some assistance on occasion.

CA: Yes, I agree, but you see, Captain, one thing leads to another. You start with a small thing. The moment we resign to it, we say oh, it doesn't matter, it's such a negligible thing, it won't make much damage to my soul, my virtuous life. The moment you give in one place you know, it grows. It grows, yes.

A: Do you think helping soldiers on occasion could perhaps damage your virtuous life?

CA: No, today you do that, tomorrow you do a larger concession to something else, you lose your integrity and virtue as an individual. You're not doing justice to your person, to your position, to your status.

In the next section this interaction is analyzed according to its most probable cultural assumptions.

TRAINING ADAPTATION OF SIMULATION EXERCISES

While some learning undoubtedly occurs during the simulation exercise itself, some form of "feedback," guidance, or explanation is necessary for maximum learning. Of course, the simulation could be presented in a variety of ways.¹

Format

The approach used in the current application of the simulation involved live interaction, with the trainees participating as role-players (as previously described) and/or as observers of the role-playing. Attention was called to what had occurred in the role-playing encounter through a post-simulation interview with the trainee and, if viewed by an audience, an interview with the auxiliary. The intercultural phenomena of the interaction were then analyzed and implications drawn for overseas performance.

When the simulation was viewed by an audience, an introduction was usually provided. The introduction covered essential points on the mechanics of role-playing and also attempted to sensitize trainees to the basic phenomenon of cultural differences in values and assumptions.

The interviewing of participants in the role-playing exercise was an especially important component of the format. The interviewer probed for motives, intents, judgments, and affective responses—first the American's and then separately the "foreigner's"—occurring in the encounter. The auxiliary remained in role, answering questions as if he were actually reflecting on his encounter with the American advisor. Frequently, the interview interaction provided examples of cultural assumptions and values as fruitful as the simulation dialogue itself.

The example dealing with George Washington on a horse will serve to illustrate the nature of the interviewing. The first objective of the interviewer was to elicit from the American participant his perception of his counterpart: how he perceived the rationale and motives of Major Khan when the latter commented on George Washington's behavior. The next phase of the interviewing was to elicit an evaluation by the American of his own accomplishments. In the specific episode, for example, the American was asked to evaluate the effect of the story of George Washington on Major Khan. Did it make its point? Was it convincing? At a more general level, the participant was also asked to evaluate Major Khan and to predict how he would be able to work with him in the future. Finally, the American would be asked to place himself in Major Khan's shoes, and describe the situation, the events that transpired, and himself as he believed Major Khan perceived him. A similar interview was then held with Major Khan, who maintained his assigned Contrast-American role.

¹HumRRO Work Unit COPE has as its objective the development of programmed audio-visual instruction based on the simulation exercises.

The last stage of each simulation involved an analysis and synthesis. The events occurring in the simulation and elaborated in the interview were analyzed in terms of the concepts on which the Contrast-American culture had been built. The episode of George Washington helping the sergeant, for example, was interpreted as reflecting the trainee's (and Washington's) commitment to get a job done. The trainee's point in using the story was that a job had to be done and that George Washington, being a good leader, was willing to assist in the operation. Among other things, the story illustrates doing, the American belief in the value of activity. The story, as told, also illustrates the American emphasis on equality, rather than status, and the depersonalized characteristics of American culture; namely, leadership is part of getting a job done, not part of a person's essential nature.

In the perception of the Contrast-American the situation looked quite different. The first response of Major Khan was acquiescence to the American, but he quickly interjected a personalized frame of reference into the episode; namely, how strong George Washington was. This focus on the "man" (as opposed to the "job") was rejected by the American, who attempted to redirect the conversation to the need for assistance. As the American persisted in pursuing his point, Major Khan revealed a position clearly different from that of the American, a position which, in fact, agreed with the conduct of the sergeant. At this point, then, a contrast between the two views on leadership became more overt.

For the American, a leader is a person who does certain things; he participates, demonstrates, and instructs. For the Contrast-American, leadership is a state of being; the effect of the leader on his men coming from inspiration of his status rather than from participation—he orders, he does not necessarily do. Implicit in this view of leadership is the idea that a man is born a leader and not made so by virtue of training or acquired skill.

The nature of the analysis and synthesis is best guided by what emerges in the scene itself. The elaboration and incisiveness of the analysis attempted depends largely on the judged level of sophistication of the class of trainees and the skill of the interpreter in perceiving the values and assumptions underlying the interaction.

Possible Negative Trainee Reaction

The requirement that the trainee adjust, innovate, or simply cope with issues in the simulation exercises, without prior indoctrination or guidelines for behavior, has been observed to evoke defensiveness and rationalized denials of the relevance or validity of the exercises. This reaction is to be expected since the earlier stages of learning typically involve an unfreezing of habitual ways of perceiving that the trainee has depended upon throughout his lifetime. Since the training exercises question the absolutism of these perceptions, it is not surprising that he becomes somewhat emotional and anxious.

Among the comments and criticism that can be expected are "Language is really the important thing," "This guy can't be for real," "These exercises are artificial," "The room is not conducive to the necessary atmosphere," and "He speaks English too well." Although all of these arguments contain a partial truth, the fact that they are marshalled at all may be interpreted to mean that a confrontation has taken place. Given the difficult and challenging nature of the experience and the high involvement of participants making these kinds of comments, the comments seem to represent a form of insurance against failure.

In another form of defensiveness, the auxiliary may be perceived by the trainee as harboring personal antagonism toward him. While the manifest

behavior may "legitimately" be perceived this way by the culturally insensitive observer, any competition or hostility in the exercise actually stems from cultural underpinnings, not from individual efforts to create difficulty or gain advantage over the trainee.

In one intensive training effort with a small number of military volunteers, all of whom were participating role-players, the trainees were allowed during an early stage of the exercises to ventilate defensive reactions such as those described. The trainer avoided challenging the statements but acknowledged the stressful nature of the encounter. Gradually the tenor of the comments and the overall attitude toward the exercise changed markedly. Some rather sheepishly admitted that it was "tough going," others said that it would certainly be too much for "naive second lieutenants" (the trainees were all the rank of captain or above), and still others acknowledged that they were taking the problems home with them. One trainee admitted that he had had an argument with his wife because she had questioned the credibility of a "non-Western" who spoke such fluent English. Also, at least one trainee held informal discussions with friends and associates (including his superior officer) on how to approach his counterpart in the simulations.

When the simulation is presented before a group of trainees with only one or two members of the class actually playing a role, additional issues of group response must be considered. The audience may identify solely with the "disadvantaged" American role-player and perceive no integrity in the Contrast-American role, or the audience may identify with the "unsophisticated" foreigner at the mercy of the "advanced" American. Either identification, if exclusive, tends to destroy a major training purpose of the simulation: to examine the cultural predispositions of an American while simultaneously drawing attention to the potential hazards underlying intercultural communication.

Part III

PRELIMINARY EVALUATION OF TRAINING EFFECTS

DESCRIPTION OF CRITERION MEASURES

The rationale behind the selection of criteria and criterion measures was set forth in Part I. As explained there, it seemed necessary and feasible to use interim, rather than ultimate or field criterion measures. Also, since the goal of training was limited to the intercultural and interpersonal aspect of individual performance, it was desirable to limit the criteria to the more-or-less systematic constructs toward which the training was directed. Cultural awareness was deemed to be an appropriate partial criterion; this included both awareness of one's own cultural values and assumptions and awareness of the cultural values and assumptions underlying the behavior of others.¹

Four scales were developed to measure these facets of cultural awareness.²

- Test A A 30-item, multiple-choice test of cultural awareness as measured by ability to identify the values and assumptions behind stated acts or beliefs of a foreigner (Contrast-American).
- Test B A 16-item, multiple-choice test of cultural awareness as measured by ability to predict the behavior of a foreigner (Contrast-American) in the context of interaction between the foreigner and an American.
- Test C A test of knowledge of American predispositions as measured by ability to identify typical American characteristics on a 29-item adjective checklist.
- Test D A 20-item scale of affective reaction to American and Contrast-American orientations as measured by social or attitudinal preferences toward people holding certain cultural values and assumptions.

In Table 3, the analytic categories of awareness—cognitive, conative, and affective—that are measured in each test are identified.

Test A requires the trainee to select the most likely explanation for a stated behavior by a "foreign" counterpart. The trainee is instructed to assume that the counterpart is a hypothetical foreign person whose thinking differs most widely from that of Americans. An example of one of the questions is:

- A (foreign) counterpart probably reacts best to advice
 - (a) which stresses facts and figures about concrete issues.
 - (b) which is well embedded in a discussion.
 - (c) which is carefully offered in terms of "opinion" rather than "fact."
 - (d) which clearly indicates the direction in which he is to move.

¹It is acknowledged that learning probably occurred during the training exercise which might be described as well by other constructs, e.g., capacity for learning overseas, non-ethnocentrism, ability to postpone evaluative judgment, or flexibility. Most of these constructs overlap with "cultural awareness."

²Additional instruments predicting the most typical and the most appropriate behavior responses of Americans in the simulation are under development or are being planned. They will serve to round out the paper-and-pencil testing.

Table 3

Categories of Awareness Measured by Criterion Tests

Cultural Awareness	Analytic Category of Awareness		
	Cognitive (Perception)	Conative (Motive-Behavior)	Affective (Emotion)
American Awareness	Test C		Test D ^a
Other Awareness	Test A	Test B	Test D

^aThe American part of Test D was regarded more as a marker variable to help in interpretation than as a criterion measure; the direction of desired response is unknown.

The correct answer (b) is the one considered to contrast maximally with the assumptions and values of American culture. The opposite of the American's direct, explicit, and impersonal approach to work is an indirect, discursive, personalized approach in which work commitments are indistinguishable from social commitments. The other alternatives represent varying degrees of Western cultural commitments. Response (a), for example, taps Western emphases on concrete operational definitions of phenomena ("statistics") which frequently become confused with the phenomena themselves. Response (d) on the other hand, highlights the notion of implementation, a pervasive habit of thought for Westerners, whose self-images are so habitually tied to progress and accomplishment.

Test B¹ is similar to Test A but is more behaviorally directed. It consists of predicting a Contrast-American's reactions in the context of an ongoing interaction. This test is a running narrative of a simulated live cross-cultural encounter, appropriately broken at intervals where the auxiliary gave a significant Contrast-American response. The trainee is instructed to select, from four alternatives, the actual response the foreigner has made. The following is an example of an item:

Foreign counterpart: Well, you see our training comes from the instructors. The instructors know everything.

American: If the people have any questions while they're being trained, [do] they ask the instructor?

Foreign counterpart:

Alternative a: No, the foremen ask the questions. When the people are giving them good answers, they know it's time to give more instruction.

Alternative b: We take care to select our people properly. We see to it that what they have done before makes them already familiar with the kind of work we are training them to do.

Alternative c: You see, we have only a limited time to give them instruction . . . with these conditions it is more important to dispense information than to answer questions.

Alternative d: I don't think they would have any questions because the instructors tell them all they need to know. The instructors give them all the training they need. Why should there be any questions?

Alternative d is the correct response, contrasting fully with the Western idea of student-centered education. Encouraging active student participation and possible student criticism, which blurs the status differences between student and teacher, is not countenanced in the traditional non-Western world.

¹Developed by Martin Sternin in association with the authors.

Alternative a suggests a measured instruction proportionate to the students' rate of absorption and alternative b, a selection process reflecting training accomplishment. Both are within the Western band of the spectrum of cultural assumptions and values. Alternative c acknowledges the precedence of information-imparting over question-asking, but cites a Western criterion of time limitation as a justification.

Test C was designed to measure the accuracy of the trainee's image of Americans. It consists of a checklist with 29 adjectives, suggesting 16 Western and 13 non-Western characteristics. Examples of Western traits included are operational, individualistic, and concrete; of non-Western, harmonizing, intuitive, and personalizing. Each adjective was rated on a six-point scale from "very like" to "very unlike." However, accuracy in judging the typical American characteristic was computed by adding any "like" ratings (scale categories 1 to 3) on Western traits to any "unlike" ratings (scale categories 4 to 6) on non-Western traits. As can be seen, the instrument is conceptually distinct from the previous two, which focused on awareness of "foreign" (i.e., Contrast-American) behavior and assumptions.

A fourth instrument, Test D, measures affective associations to American and Contrast-American assumptions and values which are presented as stimuli in a format like that used in a social-distance scale (Triandis and Hall, 28). The scale requires the trainee to declare his attitude (on 17 statements reflecting the extent to which he is willing to become personally involved in different types of relationships) toward hypothetical stimulus persons holding each of 20 stated positions.¹ Part of Test D is reproduced in Appendix B.

An example of a stimulus statement with an underlying American assumption (not identified as such) is "A person who holds that the lessons of life are best learned from contacts with people of one's own age group." The statement reflects the American value of peer relations as a socializing influence and egalitarianism as a way of life. A stimulus statement involving a Contrast-American assumption (not identified as such) would be "A person who holds that to judge an issue by popular vote is to sacrifice the opportunity to determine right from wrong." This statement is an expression of the assumption that truth resides in specified roles or certain conditioned states of mind and is not likely to emerge from consensus, and further that it is absolute as distinct from the relative working-type truth from which the American frequently operates.

The trainee was asked about his attitude toward or willingness to associate with each stimulus "person" under different circumstances (these formed sub-questions to each stimulus item). Examples of the type of association are "would or would not invite this person to my club," "would or would not be partners with this person in an athletic game," and "would or would not be on a first-name basis with this person."

The American items were included as a marker variable rather than as a criterion variable. It was anticipated that change or lack of change in the American items might help in the interpretation of any change in the Contrast-American items.²

¹Each of the 20 stimulus items contain 17 different statements (reflecting social distance) on which each stimulus "person" is to be rated. Three of these statements were not used in the final scoring because the direction of the affective association was ambiguous.

²It was also anticipated that the score on the American items could serve as a base line that would enable one to derive a "prejudice" score that would remove individual differences in the tendency to express generally favorable reactions to other people. Attempts to correlate individual differences between the level of affection (willingness to associate) on the American's part and the level on the Contrast-American's part failed to yield any promising results. However, the sample was for only 17 trainees.

RELIABILITY OF CRITERION MEASURES

Investigations as to the reliability of the four scales were conducted on three samples: middle-level executives of the Westinghouse Corporation who were in the midst of an intercultural training course (discussed in the following section), Peace Corps trainees in the early stages of training, and Army officers taking the psychological operations course at Fort Bragg, North Carolina.

Two types of reliability coefficients for the four scales are shown in Table 4. In general, the internal consistency (split-half) is moderate to good; an exception is Test B on one of the two samples. The split-half coefficients for Test D represent correlations between two sets of stimulus statements, each statement having been scored by averaging across the 17 subparts of each item (stimulus statement); the high split-half reliability is doubtless due, in part, to greater consistency from this averaging and also, probably, to response sets carried from item to item. Test-retest reliability ranges from .60 to .88, suggesting stability of scores over time for a variety of time intervals.

Table 4
Reliability Data for the Three Samples

Test	Split-Half Reliability ^a				Test-Retest Reliability					
	Westinghouse		Peace Corps		Peace Corps (5 days)		Fort Bragg (3 weeks)		Westinghouse (7-19 months)	
	<i>r</i>	<i>N</i>	<i>r</i>	<i>N</i>	<i>r</i>	<i>N</i>	<i>r</i>	<i>N</i>	<i>r</i>	<i>N</i>
Test A	0.65	(N=47)	0.48	(N=42)	0.73	(N=42)	0.67	(N=63)	0.72	(N=22)
Test B	0.25	(N=47)	0.68	(N=42)	0.64	(N=42)			0.60	(N=22)
Test C	0.67	(N=46)	0.49	(N=42)	0.69	(N=42)			0.61	(N=22)
Test D										
American	0.94	(N=29)							0.88	(N=22)
Contrast-										
American	0.91	(N=29)							0.84	(N=22)

^aCorrected by the Spearman-Brown formula.

While reliability data are favorable, the scales must continue to be regarded as in the development stage. Efforts to explore the meaning and reliability of these scales are continuing.

PRELIMINARY ASSESSMENT OF THE SIMULATION EXERCISES

Although both the criterion measures and the simulation exercises were still somewhat in the developmental stage, it seemed desirable to make a tentative evaluation of the effects of simulation exercises. The opportunity arose when the University of Pittsburgh Graduate School of Public and International Affairs undertook the development and operation of an innovative intercultural training program for middle-level executives of the Westinghouse Corporation.

Assessment of this training group was recognized as a short-run contribution to ongoing research, rather than an attack on some of the more formidable problems in the measurement of training effects or in substantive issues in training per se. The assessment was also a preliminary evaluation from

which only tentative conclusions could be drawn. The sample size was small (35 men in two groups), many desirable experimental controls were not achievable without excessive effort, and the criterion tests had not been independently validated.

Trainees and Procedure

The Westinghouse executives were selected because of a high probability that they would eventually be sent overseas, but few knew where they might go. Only a few had already had overseas experience.

Tests were administered to the participants in two different training programs, one in 1965 and one in 1966. Tests A, B, and C were administered three times in each of two training programs, once before the simulation exercises (but following two or three weeks of other forms of training), once immediately after the exercises, and again after a lapse of either 9 months or 21 months. Test D was administered only to trainees in the 1966 program. These four tests provided the before-and-after measures of assessment. In addition, two personality scales measuring authoritarianism and Machiavellianism (described more fully below) were provided to allow some probing of individual response patterns and potential.

The overall three- or four-week training program made use of a variety of methods but was directed toward more effective intercultural communication. Instruction included modified sensitivity training, films, discussions, role-playing, case studies, practical exercises, and lectures covering topics such as perception, psychological phenomena anticipated overseas, business practices, health, and foreign policy (see Rich, 29, for description). Programs for the two years were quite comparable, although some modifications were made. The simulation exercises were introduced toward the end of the programs. A total of approximately 12 hours, over a three- or four-day period, was devoted to the simulation exercises. Testing consumed an additional three hours.

Some trainees were participants and observers; about two-thirds were observers only. The format used was similar to that previously described in the section on development of the simulation. A trainee received the background materials when he agreed to be a participant. He then assumed the role of the American while others observed. Two Contrast-American auxiliaries were used, one taking the Contrast-American I role in five scenes and the other auxiliary the Contrast-American II role in two of the same scenes. Role-playing trainees were also changed with each scene. After each of the role-playing scenes ended, interviews were held and analysis and synthesis undertaken. The audience was free to ask questions of the training staff, role-playing participants, or auxiliaries; a semistructured group discussion was encouraged.

An effort was made to maintain uniform conditions in the two training programs, conducted a year apart. Sequence and choice of scenes played, relative amount of time devoted to role-playing and discussion, and the stable auxiliaries and trainers involved were all kept constant. It must be remembered, however, that the simulation training consisted of spontaneous role-playing on the part of the American trainee, and his approach determined to a large degree the specifics of the counterpart's responses.

Changes in Scores Following Simulation Training

The pre- and post-training results from Tests A, B, and C for the 1965 and 1966 groups combined are presented in Table 5. The theoretical range of scores

Table 5
Change in Test Scores as a Function of Training,^a Tests A-C

	When Test Taken	N	df	Test A			Test B			Test C		
				Mean Score	SD	t	Mean Score	SD	t	Mean Score	SD	t
Test												
Pretest t ₁		35		15.5	3.7		6.8	2.5		20.2	3.4	
Posttest t ₂	5 days	35 ^b		20.4	2.9		10.1	1.8		21.7	2.6	
	after training											
Posttest t ₃	9 months	7		17.9	4.7		9.3	0.8		21.4	3.0	
	after training											
Posttest t ₃ '	21 months	15		17.5	3.6		9.2	3.0		21.3	2.7	
	after training											
Time												
time ₁ -time ₂			34 ^a			8.6**			8.6**			2.5*
time ₁ -time ₃			6			3.1*			2.0			1.3
time ₁ -time ₃ '			14			0.5			2.8*			1.9
time ₂ -time ₃			6			1.1			3.1*			0.6
time ₂ -time ₃ '			14			5.7**			1.8			1.2

^a**indicates $p < .001$; *indicates $p < .05$.

^bFor Test C, $N = 34$, $df = 33$.

for Test A is 0 to 30; for Test B, 0 to 16; and for Test C, 0 to 29. For each test, the higher the score the better the performance. The data show significant and, for Tests A and B, fairly sizable average increments in learning immediately after training (Time₁ - Time₂). There is also a statistically significant change in the scores on Test C, but the level of significance is not as great as on Tests A and B.

Since there was no control group, the alternate explanation that the increments are due to instrument sensitization or "practice effects" deserves some attention. For Test A, test-retest data three weeks apart on a sample of 52 Fort Bragg psychological operations students yielded virtually identical mean performances. On a sample of 42 Peace Corps trainees who received all three scales at five-day intervals, however, slight but statistically significant gains were noted on Tests A and B. Performance on Test C remained unchanged. One also cannot definitely rule out the effects of simultaneous events, but this possibility is lessened by the fact that other principal training blocks in the program did not occur between testings. Consequently, it seemed relatively safe to conclude, despite the absence of a control group, that changes in test scores are a result of the simulation training.

Performance scores for the three tests either 9 months or 21 months after training are also shown in Table 5. At the third testing (9 or 21 months later) the direction of the scores still indicates better performance than the original levels (Time₁), but they also reflect a loss of learning from the level achieved at the end of training (Time₂). In some instances those changes are statistically significant, in others they are not. In Test A both learning and learning loss appear to be more subject to change.

The one remaining test, Test D, is intended to measure affective reactions to American and Contrast-American values and assumptions. With a limited sample of 17 (the 1966 group) the test yields a statistically insignificant trend

toward more positive feelings toward persons holding Contrast-American positions. Not unreasonably, reactions to persons holding American assumptions was at almost identical levels before and after training.

The insignificant amount of change on the Contrast-American part of Test D may mean that the instrument is not particularly sensitive to change. On the other hand, it may mean that emotional reactions to cultural values and assumptions are not inclined to show change with a mere three or four days of training.

Whichever interpretation prevails, the instrument may still hold promise as a covert measure of emotional feelings toward cultural values and assumptions. Although pretesting indicated that the cultural identity of the statements was not at all apparent, test responses indicated that trainees expressed preference for closer association with persons holding American assumptions than with persons holding the Contrast-American values ($t = 7.4$, $df = 16$, $p < .0001$). However, the picture is further complicated by a correlation of .85 between the two parts (American and Contrast-American) of the scale; this suggests consistent individual differences and response sets to accept or reject statements irrespective of their cultural source.

Relationship Between Scores Before and After Training

What relationship can be demonstrated between performance on tests either before or after the training input? It will be recalled that Test A is geared to a logical-cognitive level of learning in the context of assumptions underlying "foreign" behavior, Test B to concrete-behavioral prediction of the probable foreign response to an American response, Test C to cognitive awareness concerning representative Americans, and Test D to an assessment of affective reactions to both American and Contrast-American values and assumptions.

Correlations of the scores obtained on these tests are presented in Table 6. Scores were standardized to equate 1965 and 1966 groups. All correlations involving pretraining scores and "amount learned" are partial correlations between the pretraining and posttraining scores with the contribution of the pretraining scores removed. Correlations between "amount learned" on two different tests are second-order partial correlations between posttraining scores with the effect of pretraining scores removed.¹

Only one correlation between pretraining scores is statistically significant, suggesting that Test C measures a different dimension than Test A or B. A significant and fairly substantial correlation (.55) exists between Test A and Test B, suggesting a relationship between cognitive- and behavioral-level estimates of awareness when exploring pre-existing awareness of "foreign" (Contrast-American) predispositions. The relationship indicates that abstract cognitive awareness of cultural phenomena to some extent goes hand-in-hand with ability to predict specific behaviors in intercultural situations. However, the corresponding correlation with reference to the amount learned during training (-.19) is in the opposite direction (although not statistically significant), suggesting that the training-induced learning need not conform to the same pattern as that of existing (prior) levels of awareness.

¹Past studies have shown that variance due to induced change is often unstable either over time or between items at any one time. Such unreliability can drastically reduce the size of correlations with other variables, since the outside limit of correlation between two variables is the square root of the product of their reliabilities. The use of partial correlations eliminates some of the methodological problems associated with change scores (30), but partial correlations themselves demand care in interpretation.

Table 6
Intercorrelation of Pretraining and Posttraining Scores^{a,b}

	Test B		Test C		Test D			
	Pretraining Score	Amount Learned	Pretraining Score	Amount Learned	American		Contrast-American	
					Pretraining Score	Amount Learned	Pretraining Score	Amount Learned
Test A								
Pretraining Score	0.55**	-0.17	0.17	0.23	0.42	0.38	0.16	0.09
Amount Learned	-0.23	-0.19	0.03	0.37*	0.08	-0.22	0.03	-0.08
Test B								
Pretraining Score			-0.14	0.01	0.38	0.24	0.20	0.07
Amount Learned			0.00	0.21	-0.17	0.25	-0.16	0.24
Test C								
Pretraining Score					-0.04	0.05	0.04	0.42
Amount Learned					-0.41	-0.36	-0.48*	-0.51*

^aAll coefficients are Pearson correlations. Correlations in the "amount learned" column or row are first- or second-order partial correlations with posttraining scores adjusted for level of the respective pretraining scores. **indicates $p < .01$; *indicates $p < .05$.

^bSample size varies, being 34 or 35 when Test A, B, and C are involved and 16 or 17 when Test D is involved. In addition, df depends upon whether the coefficient is a zero order, first-order partial, or second-order partial.

There is evidence (second-order partial correlation of .37) of some covariation between training-induced learning on Test A and on Test C (but little relationship [$r = .17$] for the corresponding pretraining scores). This correlation ($p < .05$) supports the previously stated hypothesis of a reciprocal relationship between developing cultural self-awareness and developing awareness of other cultures. Since the assumption of reciprocity remains a key integrative concept in the current approach to training, it deserves to be assayed more systematically in future work.

Test D, designed to assess emotional dispositions rather than "content" learning, yielded inconclusive and rather ambiguous results. With the sample of only 17, the stability of these findings cannot be assured and the prudent course would be to postpone any judgment.

Personality Correlates of Culture Awareness Scores

Two standard scales were included to permit exploration into personality factors related to criterion performance. These were a 20-item version of the California F (authoritarianism) scale measuring tendencies toward antidemocratic thinking, and a 20-item Machiavellianism scale (items derived from the writings of Niccolo Machiavelli) measuring attitudes sympathetic to the impersonal manipulation of people without regard to ethical considerations.¹

¹Both scales are counterbalanced for acquiescent response tendencies and have been made available in their current form by Richard Christie, of Columbia University.

The correlations of the scores on these two personality scales with the cultural-awareness scores on Tests A, B, C, and D are given in Table 7. All correlations are based on standardized scores. The correlations with the post-training scores are first-order partial correlations with the effects of the respective pre-training scores removed.

Table 7

Personality Correlates of Cultural Awareness Scores^{a,b}

Personality Scale	Test A (N=34)		Test B (N=34)		Test C (N=33)		Test D (N=17)			
	Pre-training Score	Amount Learned	Pre-training Score	Amount Learned	Pre-training Score	Amount Learned	American		Contrast-American	
							Pre-training Score	Amount Learned	Pre-training Score	Amount Learned
Authoritarianism	-0.35*	-0.32	0.09	0.14	-0.23	-0.09	-0.25	-0.15	-0.22	-0.14
Machiavellianism	-0.13	0.12	-0.39*	-0.24	0.17	0.01	-0.15	0.09	-0.27	-0.11

^aThe correlates are Pearson correlations; correlations with "amount learned" are first-order partial correlations with the posttraining scores adjusted for level of the respective pretraining scores.

^b*indicates $p < .05$.

The results appear to confirm the notion that personality dispositions having a strong perceptual-interpersonal component are involved in intercultural perception. Eight out of the 10 pre-training correlations with authoritarianism and Machiavellianism are negative, two significantly. Although these correlations are not large, the pattern of correlation for the 1965 and 1966 samples, computed separately (excluding Test D, which was administered to only one sample), was observed to be fairly similar.

The two significant correlations are between Test A and authoritarianism and between Test B and Machiavellianism. (The pattern remained when inter-correlations were done within samples.) This suggests that authoritarian attitudes (but not Machiavellian ones) are a liability in intercultural tasks requiring awareness at the abstract cognitive level, and Machiavellian attitudes (but not authoritarian ones) are a liability in ability to predict specific behavior in an intercultural situation. In this instance, both tasks were concerned with the same basic material. An explanation of why each personality measure correlates differently with Test A than with Test B is not readily apparent.

Subjective Trainee Reaction

Trainee responses to anonymous questionnaires and to interviews following the simulation exercise were strongly favorable. Fifteen trainees out of 17, for example, regarded the exercise as useful (two were unsure) and 14 out of 17 indicated it was challenging. Numerous other favorable comments such as "this really gave the rest of the program meaning" or "tremendous impact" were made. Similar reactions were given after the exercises were tried out before various Peace Corps, business, and military audiences in the Washington area, although the favorableness of the reaction was rarely unanimous. In general, the reactions were more positive when the audience had had prior instruction in the intercultural aspects of overseas work.

DISCUSSION AND IMPLICATIONS

VARIATIONS IN CONDUCT OF TRAINING

The intercultural simulation exercises offer considerable flexibility and versatility as a training technique. For example, they may be used as a dramatic beginning designed to "unfreeze" the trainee and set the stage for future learning. The primary intent of such an approach would be to increase his awareness of the possible limitations of his own cultural frame of reference and of the possibility of alternative ways of perceiving a situation.

At a much later stage of training, the simulation can serve as a behavioral "testing ground" and as an opportunity to achieve greater integration of knowledge ("refreezing"). This stage involves two types of inputs. One consists of the opportunity to experiment behaviorally and the other a greater understanding of the conceptual framework and ramifications of the cognitive variables being simulated. Exposure to alternative values and assumptions, together with dimensions that can be used to understand them, yields more transculturally valid perceptual sets (assumptions). This is especially true if the trainee has the opportunity to experience the "alternative" culture behaviorally, as in a role-playing exercise, as well as intellectually.

The level of interpretation of the simulation may also vary. For some role-players and observers, for example, the simulation is best considered as a practice or familiarization exercise, since the ambiguities and cognitive abstractions involved may make intellectual or emotional demands beyond their capability. For optimal training benefits, however, the trainee experiences a series of cognitive confrontations which, through a gradual loosening of cultural and personal moorings, lead to a more genuine acceptance of the relativism of American cultural values and assumptions. This process can be a taxing emotional experience. Uncertainty, doubt, and anxiety are familiar accompaniments, as are heightened vigilance and awareness.

Under these conditions, the postsimulation analysis takes on added importance. It appears imperative that a receptive individual ("interpreter") be available to assist the trainee to cope with his emotional reactions to his experience. In a sense, the interpreter must serve also as a cultural link between the trainee and the counterpart, providing the trainee with a sounding board for his interpretations and reactions. This does not mean that the interpreter should pass direct judgment on such comments; usually a deeper involvement in the simulation is generated when prescriptions are avoided.

How, then, can the interpreter function to allow the trainee to get maximum benefit from the simulation experience? The answer lies in the analyzer's ability to induce the trainee to examine crucial bits of intercultural behavior and in encouraging cultural reality-testing during subsequent exercises. In this way, the trainee is led through cultural material at the depth and pace of which he is capable. Inferences drawn from the interaction are offered to the trainee according to his willingness to accept the integrity of the simulated behavior and his demonstrated need for codification. It should be clear from these comments

that the interpreter must give careful attention to the trainee's emotional state, particularly his morale and resistance to change.

With sustained exposure to the simulation exercises, a balanced cognitive-affective approach must be assumed—that is, cultural attitudes or opinions must be seen in the context of a dynamic functioning personality. This notion of the motivational context of attitudes is not novel, having been emphasized by several writers in the last decade (e.g., Sarnoff and Katz, 31; Smith, Bruner, and White, 32).

Yet a third variation in the use of simulation devolves around the engagement of single or multiple Contrast-American roles. Repeated meetings with a single Contrast-American role-player establishes a continuity of events and experiences. An increased interpersonal involvement is generated, with an attending sense of obligation and responsibility to an individual. However, instead of playing out the scenes with a single counterpart, a trainee can be exposed to two (or perhaps more) contrast roles for a particular scene before moving on to the next scene. This procedure tends to throw the cultural dimensions into relief. By establishing a second point of reference in one's "conceptual space," the technique facilitates the relativistic interpretation of American predispositions. It would appear that sacrifice of the advantages of the single-role approach would be justified when the simulation exercises are to be done before an audience. It may also be preferred in other situations, but such judgments must await actual experience with the roles used in this way.

Finally, variations in sequence and timing of scenes are possible. For example, a single scene can be played several times, the number and frequency of meetings being at the discretion of the trainee. This technique should give the trainee more of an opportunity to show concrete signs of bridging the gap between himself and his counterpart, that is, to act on his emerging understanding of the "foreign" culture. The particular "solutions" developed by the trainee might be of interest in themselves as examples of superior adaptations.

Another alternate is to give all six scenes to the trainee at the beginning and permit him to determine his own overall strategy. This variation would significantly increase the burden on the auxiliary, who would have to be prepared to offer contrast to a wide assortment of assumptions derived from any of the six scenes or combinations of them. However, the role-playing would probably seem more realistic, and effective integrative approaches to the problem may be developed by some trainees.

INTEGRATION OF SIMULATION EXERCISES INTO A TOTAL AREA TRAINING PROGRAM

Conventionally, area training includes a wide range of different types of instruction: reading assignments and lectures on the political organization, historical development, and geography, and foreign-language training. Simulation is intended as a supplement to such programs. Far from replacing other elements, the simulation is probably most effective when used in careful conjunction with other techniques and training inputs. For example, the simulation may serve as a colorful opening demonstration to pique curiosity for subsequent more systematic learning, or it may be used to illustrate or integrate lecture or other area-content material.

Based on limited attempts, it seems that one of the most satisfactory combinations of training techniques is that of linking the simulation experience with some other training oriented to human relations, such as sensitivity training.

One purpose of sensitivity training is to increase awareness and diagnostic skills on the dynamics of interpersonal communication irrespective of specific content. The cultivation of such an analytic perspective toward group or interpersonal communication tends to facilitate objective and unprejudiced assessment of cultural as well as noncultural cues. Furthermore, the "sensitized" participants can seize upon the simulation exercises as an opportunity to try out their new-found capacities for human relations analysis on evocative cultural material.

**LITERATURE CITED
AND
APPENDICES**

LITERATURE CITED

1. Kluckhohn, Florence R., and Strodtbeck, Fred L. *Variations in Value Orientations*, Row, Peterson and Company, Evanston, Ill., 1961.
2. Lewin, K. "Frontiers in Group Dynamics: Concept, Method and Reality in Social Science," *Human Relations*, vol. 1, no. 1, 1947, pp. 4-42.
3. Schein, Edgar H. "Management Development as a Process of Influence," *Industrial Management Review II. II*, School of Industrial Management, Massachusetts Institute of Technology, May 1961.
4. Foster, Robert J., and Danielian, Jack. *An Analysis of Human Relations Training and Its Implications for Overseas Performance*, HumRRO Technical Report 66-15, August 1966.
5. Wallace, S. Rains. "Criteria for What?" *American Psychologist*, vol. 20, no. 6, June 1965, pp. 411-417.
6. *Conference on Evaluation of Personnel Effectiveness in Overseas Technical Assistance Programs*, The Carnegie Endowment of International Peace, New York, January 1965.
7. Useem, John, Useem, Ruth, and Donoghue, John. "Men in the Middle of the Third Culture: The Roles of American and Non-Western People in Cross-Cultural Administration," *Human Organization*, vol. 22, no. 3, 1963, pp. 169-179.
8. Kluckhohn, Clyde, et al. "Values and Value-Orientations in the Theory of Action," in *Toward a General Theory of Action*, Talcott Parsons and Edward A. Shils (eds.), Harvard University Press, Cambridge, 1951, pp. 388-433.
9. Kluckhohn, Florence R. "Some Reflections on the Nature of Cultural Integration and Change," in *Sociological Theory, Values and Sociocultural Change: Essays in Honor of P.A. Sorokin*, E.A. Tiryakian (ed.), Free Press, New York, 1963, pp. 217-247.
10. Kerlinger, Fred N. "Decision-Making in Japan," *Social Forces*, vol. 30, October 1951, pp. 36-41.
11. Silvert, K.H. "National Values, Development, and Leaders and Followers," *UNESCO International Social Science Journal*, vol. XV, no. 4, 1963, pp. 560-570.
12. Bateson, Gregory. "Social Planning and the Concept of Deutero-Learning," in *Readings in Social Psychology*, Theodore M. Newcomb and Eugene L. Hartley (eds.), Henry Holt and Company, New York, 1947, pp. 121-128.
13. Reichel-Dolmatoff, Gerardo and Alicia. *The People of Aritama: The Cultural Personality of a Colombian Mestizo Village*, The University of Chicago Press, Chicago, 1961.
14. Williams, Robin M., Jr. *American Society: A Sociological Interpretation*, Alfred A. Knopf, New York, 1961, pp. 415-426.
15. Arensberg, Conrad M., and Niehoff, Arthur H. *Introducing Social Change*, Aldine Publishing Company, Chicago, 1964.
16. Kluckhohn, Clyde. "American Culture - A General Description," in *Human Factors in Military Operations*, Richard H. Williams (ed.), Technical Memorandum ORO-T-259, Operations Research Office, The Johns Hopkins University, Chevy Chase, Maryland, 1954, pp. 94-111.
17. Foster, George M. "Peasant Society and the Image of Limited Good," *American Anthropologist*, vol. 67, no. 2, April 1965, pp. 293-315.

48/49

18. Wax, Rosalie H., and Thomas, Robert K. "American Indians and White People," *Phylon*, vol. 22, no. 4, Winter 1961, pp. 305-317.
19. Henry, Jules. *Culture Against Man*, Random House, Inc., New York, 1963.
20. Potter, David M. *People of Plenty: Economic Abundance and the American Character*, The University of Chicago Press, Chicago, 1954.
21. Kluckhohn, Clyde, and Kluckhohn, Florence. "American Culture: Generalized Orientations and Class Patterns," in *Conflicts of Power in Modern Culture: Seventh Symposium*, Lyman Bryson (ed.), Harper and Row, Publishers, Inc., New York, 1947.
22. Mead, Margaret. "The Factor of Culture," in *The Selection of Personnel for International Services*, Mottram Torre (ed.), Federation for Mental Health, Geneva, 1963, pp. 3-22.
23. Gorer, Geoffrey. *The American People: A Study in National Character*, W.W. Norton and Company, Inc., New York, 1948.
24. Hall, Edward T. *The Hidden Dimension*, Doubleday and Company, Inc., Garden City, New York, 1966.
25. Nakamura, Hajime. *Ways of Thinking of Eastern Peoples: India-China-Tibet-Japan*, East-West Center Press, Honolulu, 1964.
26. Jahn, Janheinz. "Value Conceptions in Sub-Saharan Africa," in *Cross-Cultural Understanding: Epistemology in Anthropology*, F.S.C. Northrop and Helen H. Livingston (eds.), Harper and Row, New York, 1964, p. 56.
27. Northrop, F.S.C. *The Meeting of East and West, An Inquiry Concerning World Understanding*, The MacMillan Company, New York, 1945.
28. Triandis, H.C., and Hall, Eleanor R. *Creative Problem Solving in Culturally Heterogeneous Groups*, Technical Report No. 16, Advanced Research Projects Agency, Office of Naval Research, under contract No. 177-472, Nonr-177-4 (36), Group Effectiveness Research Laboratory, University of Illinois, Urbana, 1964.
29. Rich, Daniel. *Some Considerations Concerning Cross-Cultural Education*, M.A. Thesis, University of Pittsburgh, 1966.
30. Harris, Chester W. *Problems in Measuring Change*, University of Wisconsin Press, Madison, 1963.
31. Sarnoff, Irving, and Katz, Daniel. "The Motivational Bases of Attitude Change," *Journal of Abnormal and Social Psychology*, vol. 49, no. 1, January 1954, pp. 115-124.
32. Smith, M. Brewster, Bruner, Jerome S., and White, Robert W. *Opinions and Personality*, Science Editions, John Wiley and Sons, Inc., New York, 1964.

Appendix A

BACKGROUND MATERIAL FOR ROLE-PLAYER

We are asking you to act as an Army advisor assigned to a non-Western country to advise and assist the indigenous military on several high priority missions. You are Captain Smith, battalion advisor to the 1st Battalion, 2nd Regiment, 3rd Division, and are assigned to the 3rd Division Advisory Detachment.

Your predecessor in this position, a Captain Jones, was the first American advisor in this battalion. He was in the country for eight months.

We have arranged for a foreigner to play the part of your counterpart—the battalion commander—in this non-Western country. You will be meeting with this man, whom you may call Major Khan, several times to discuss problems and issues which are outlined in the following pages. Generally all the facts provided for you on the following problems and issues (except for your briefing) are available to your counterpart as well.

BRIEFING

The advisory effort in this country was initiated almost a year ago by representatives of the U.S. Army and the local military and province administrators. It was endorsed by both countries as a promising method of increasing the combat effectiveness of the indigenous forces.

With respect to the battalion to which you have been assigned (and to many others as well) these objectives have not been attained. The predecessor in your role, Captain Jones, was an officer with long experience and a fine record in stateside assignments. Nevertheless few suggestions were implemented and little progress made.

In a long official debriefing, Captain Jones noted that practically without exception the foreigners assigned as counterparts to American advisors in this country, and especially his personal counterpart (Major Khan) were there not to facilitate but to neutralize the advisor's efforts to institute changes. Excerpts from his long statement are quoted below:

There is little question in my mind that we have provided ample technical support. Even if a piece of expensive equipment were lost through poor maintenance, it was still usually replaced . . . although the local authorities have never given a clear-cut indication that they don't desire general improvement (they persistently repeat in every discussion that they are determined to win the war effort), a more realistic appraisal of their motives, based on eight months on the job, is that they are passively but effectively obstructing progress by the use of delaying tactics. Their intention apparently is to insure the continuation of material support, thereby enhancing their prestige relative to competing political factions, but following through on no change which might upset against their favor the existing political equilibrium.

FIRST MEETING WITH COUNTERPART

This is your first real meeting with Major Khan, although you were formally introduced to him several days ago. You have seen him intermittently since then but exchanged brief social pleasantries only.

In your telephone conversation with him, Major Khan was very pleasant and immediately attentive to your request for a formal meeting.

You are concerned with the mission of being an advisor: how to work with your counterpart and how to go about the task of giving advice. During the past few days you have taken the time to walk around the area to familiarize yourself with the surroundings. In doing this, you have had the opportunity to observe and to chat with various personnel in the area.

Now you walk toward Major Khan's office and knock on the door.

SECOND MEETING WITH COUNTERPART

It is now about one week since your first long meeting with Major Khan and you have formed some general idea of the needs of the villages located in the area where the Battalion is stationed. The Battalion could easily assist these communities in various projects. However, you are concerned with the problem of developing broad support from the people for any such projects. Active involvement by them, you feel, would generate considerable enthusiasm, commit them to a course of action, and possibly yield some good ideas on how and where to initiate the work.

One means of generating grass-roots support would be for Major Khan to hold open forums in the villages so that the people could express the needs of their communities as they saw them. To make such meetings possible, however, it would be necessary for Major Khan to issue certain directives. The most crucial of these directives would be an order temporarily suspending the ban on large congregations. This ban was applied several months ago because of the fear that insurgent elements would take advantage of the politically unstable conditions to further their own ends.

You have made an appointment to see Major Khan about such matters, following up on two memos explaining your ideas on the importance of developing grass-roots support. As the time for the meeting approaches, you briefly review how you plan to offer your suggestions.

Now you walk toward Major Khan's office and knock on the door.

THIRD MEETING WITH COUNTERPART

The first few projects have been completed in good time and the local villagers involved in the work show obvious signs of pleasure and satisfaction. However, the positive effect of the projects is limited to a small radius of people. Outside this sphere, there is widespread lethargy and lingering suspicion of the motives of the military.

Since the allocation of U.S. resources does not allow similar large expenditures in other villages, you have determined that publicity of the existing projects is indicated. Such publicity should do much to neutralize suspicions and swing public opinion behind the community development programs. Various types of publicity are possible to show the amount of progress being made on

the projects, (e.g., leaflets, pamphlets, or before-and-after photographs). Resources to distribute such literature to the outlying villages are readily available. Such publicity could, in effect, establish this community as a model of development to which other communities could aspire and which some at least might hopefully begin to emulate.

To arrange for such publicity and to use the community as a model, you will need to enlist your counterpart's cooperation in approaching the village heads and province administrators. Naturally, as your counterpart's advisor, you would not want to approach these local leaders directly, preferring rather to convince your counterpart of the need for action and having him follow through on his own initiative.

Having formally made an appointment with Major Khan, you now knock on his door.

FOURTH MEETING WITH COUNTERPART

In the normal course of your advisory duties, you have become aware that a movie projector which your predecessor had obtained with U.S. funds and which you had planned to use to show several good military films, is now missing. It is obviously desirable, although not critical, that this projector remain available to you and succeeding American advisors. The projector, of course, has now become the legitimate property of the local military, but American advisors do retain responsibility for the proper use of such equipment.

After several days of searching, you had not been able to get information from anyone of the whereabouts of the projector. Yesterday, by chance, while passing by the office of your counterpart's commanding officer, a high ranking local officer, you discovered that the officer had the projector in his possession. With a little legwork you have established that your counterpart (Major Khan) has given the projector to this senior officer.

Having formally made an appointment with Major Khan, you now knock on his door.

FIFTH MEETING WITH COUNTERPART

You have become dissatisfied with the quality of leadership exhibited by members of the indigenous military. On the current civic action operations, you have observed obvious deficiencies in the ability of officers to anticipate the effects of their orders and to follow up properly on them. In addition, the officers seem aloof from their own men. The overall result is, in your opinion, that leadership is erratic and progress unpredictable.

As an advisor with no command responsibilities, you have felt that a good indirect way of attacking the problem is to convince your counterpart that leadership training is a highly desirable activity.

Recently, in the presence of your counterpart, you observed a training film which described the principles of leadership and illustrated, by example, how their application could measurably improve leadership. The film, which was a standard training vehicle provided by the Department of the Army, began by showing chaotic on-the-job scenes where there was much disorganization and confusion. Then there was a quick shift to a classroom where future leaders were being instructed in the principles of leadership, each principle being followed by an illustration of how its application could improve leadership.

The film then returned to the same on-the-job scenes but now the work was seen to be progressing in an orderly and systematic fashion.

You have decided that the film would be very instructive for the indigenous military and, accordingly, you would like to suggest to your counterpart that the film be made a formal requirement for his officers. Of course, you realize that not all of the material on leadership can be immediately absorbed and implemented, but you see the film as representing a positive step forward.

You have made an appointment with Major Khan at which time you intend to recommend the introduction of the film into the training schedule. Now you walk toward Major Khan's office and knock on the door.

SIXTH MEETING WITH COUNTERPART

In the course of your activities you have been aware of the serious sanitation problems in the village areas. Marshes and ditches containing stagnant water serve as breeding grounds for insects. Much of the water supply is unsafe. You have seen swarms of flies on open food, men urinating on the sides of walls and human excrement along footpaths.

The people themselves need medical attention. Often, although not too sick to work, they may be seen walking about with various chronic diseases which continually sap their strength.

It is clear that preventive sanitary and medical measures are needed. A large scale, if simple, sewage and drainage program is appropriate and certainly, a general vaccination and inoculation campaign.

You have given some thought to developing a health and welfare team composed of suitable villagers and directed by your counterpart. You have not mentioned this idea to Major Khan before but you know that he respects your thoughts. Having let him know that you would visit him today, you now walk toward his office.

Appendix B

PART OF TEST D¹

INSTRUCTIONS

The purpose of this study is to measure the meaning that people holding certain positions have for you. You will be presented with a set of stimulus persons and asked to judge them against a series of scales. In answering this questionnaire, please make your judgments on the basis of what the various persons mean to you. On each page of the booklet you will find a stimulus person and beneath him a set of scales. You are to rate the person on each of these scales in order.

Here is how you use the scales:

If you feel that the stimulus person at the top of the page is very closely related to one end of the scale, you should circle the number closest to that end, as follows:

A person who holds that

Most of the time, the truth is better left unsaid

: 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : (9) :
would talk to him would not talk to him

If you think that the stimulus person is only slightly related to the scale, you might mark it as follows:

A person who holds that

What is true for oneself in his deepest heart is true for all men

: 1 : 2 : 3 : (4) : 5 : 6 : 7 : 8 : 9 :
would talk to him would not talk to him

If you think that the stimulus person is completely unrelated to the scale you would use the middle of the scale.

Note: Be sure to check every scale for every person.

Never put more than one circle on a single scale.

Make each item a separate and independent judgment. Work at a fairly high speed. It is your first impressions that we want. On the other hand, please do not be careless because we want your true impressions.

¹This test, except for the stimulus statement, is from Triandis and Hall (29).

A. person who holds that

To judge an issue by popular vote is to sacrifice the
opportunity to determine right from wrong

would	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	<u>9</u>	:	would not
Invite this person to my club																				
would not	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	<u>9</u>	:	would
Admire the character of this person																				
would not	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	<u>9</u>	:	would
Exclude this person from my neighborhood																				
would	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	<u>9</u>	:	would not
Teach this person																				
would not	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	<u>9</u>	:	would
Accept this person as a close kin by marriage																				
would not	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	<u>9</u>	:	would
Treat this person as equal																				
would	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	<u>9</u>	:	would not
Lose game when this person is my competitor																				
would not	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	<u>9</u>	:	would
Accept this person as an intimate friend																				
would not	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	<u>9</u>	:	would
Win game in which this person is my competitor																				
would	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	<u>9</u>	:	would not
Be partners with this person in an athletic game																				
would not	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	<u>9</u>	:	would
Be on a first name basis with this person																				
would not	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	<u>9</u>	:	would
Admire ideas of this person																				
would	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	<u>9</u>	:	would not
Treat this person as a subordinate																				
would	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	<u>9</u>	:	would not
Eat with this person																				
would not	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	<u>9</u>	:	would
Elect this person to political office																				
would not	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	<u>9</u>	:	would
Be commanded by this person																				
would	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	<u>9</u>	:	would not
Prohibit this person from voting																				

A person who holds that

A requirement of present day life is to convert insolvable
issues to practical problems amenable to solution

- would : 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : would not
Invite this person to my club
- would not : 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : would
Admire the character of this person
- would not : 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : would
Exclude this person from my neighborhood
- would : 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : would not
Teach this person
- would not : 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : would
Accept this person as a close kin by marriage
- would not : 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : would
Treat this person as equal
- would : 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : would not
Lose game when this person is my competitor
- would not : 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : would
Accept this person as an intimate friend
- would not : 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : would
Win game in which this person is my competitor
- would : 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : would not
Be partners with this person in an athletic game
- would not : 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : would
Be on a first name basis with this person
- would not : 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : would
Admire ideas of this person
- would : 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : would not
Treat this person as a subordinate
- would : 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : would not
Eat with this person
- would not : 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : would
Elect this person to political office
- would not : 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : would
Be commanded by this person
- would : 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : would not
Prohibit this person from voting

Unclassified

Security Classification

DOCUMENT CONTROL DATA - R & D		
(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)		
1. ORIGINATING ACTIVITY (Corporate author) Human Resources Research Office The George Washington University Alexandria, Virginia 22314		2a. REPORT SECURITY CLASSIFICATION Unclassified
		2b. GROUP
3. REPORT TITLE SIMULATING INTERCULTURAL COMMUNICATION THROUGH ROLE-PLAYING		
4. DESCRIPTIVE NOTES (Type of report and inclusive dates) Technical Report		
5. AUTHOR(S) (First name, middle initial, last name) Edward C. Stewart, Jack Danielian, and Robert J. Foster		
6. REPORT DATE May 1969	7a. TOTAL NO. OF PAGES 62	7b. NO. OF REFS 33
8a. CONTRACT OR GRANT NO. DAHC 19-69-C-0013	9a. ORIGINATOR'S REPORT NUMBER(S) Technical Report 69-7	
b. PROJECT NO. 2J062107A744		
c.		
d.	9b. OTHER REPORT NO.(S) (Any other numbers that may be assigned this report)	
10. DISTRIBUTION STATEMENT This document has been approved for public release and sale; its distribution is unlimited		
11. SUPPLEMENTARY NOTES Work Unit AREA, Development of Concepts and Techniques for Area Training.		12. SPONSORING MILITARY ACTIVITY Office, Chief of Research and Development Department of the Army Washington, D.C. 20310
13. ABSTRACT This report describes the design and development of training to increase cultural awareness. Significant aspects of intercultural interaction were simulated in a series of role-playing exercises. Typical American values and assumptions were demonstrably elicited from a trainee as he interacted with a "foreign" auxiliary. The auxiliary was trained to reflect a mirror image of American values and assumptions judged important to overseas performance. These values and assumptions were derived from an analysis of American "middle-class" culture. Several paper-and-pencil tests were developed as interim estimates of training objectives. Preliminary data bearing on the efficacy of the technique are presented. Possible variations in training format are suggested and some conclusions drawn for use of the simulation exercises in conjunction with other approaches and techniques.		

DD FORM 1473
1 NOV 65

Unclassified

Security Classification

Unclassified

Security Classification

14 KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
American Values						
Area Training						
Cognitive-Affective Training						
Contrast-American						
Criterion Training						
Intercultural Training						
Role-Playing						
Simulation						

Unclassified

Security Classification

ERIC Clearinghouse

AUG 10 1970

on Adult Education

DISTRIBUTION LIST

2 DIR DASD MANPOWER (PP&GR)
1 CHF DASA ATTN DDC LIB BR
1 DIR DASD MANPOWER & RESERVE AFFAIRS
2 NASA SCI & TECH INFO FACILITY COLLEGE PARK MD
1 CINC US EUROPEAN COMD ATTN SUPPORT PLANS BR J3
1 CINC US ARMY PACIFIC APD 96358 SAN FRAN ATTN G3 CBT DEVEL DIV
1 CG SOUTHERN EUROPEAN TASK FORCE APD 09164 NY
1 CG US ARMY JAPAN APD 96343 SAN FRAN ATTN G3
10 CG US ARMY FORCES SOUTHERN COMD ATTN SCARCD APD 09834 NY
2 CG US ARMY EUROPE APD 09403 NY ATTN DPNS DIV
1 CG US ARMY AD COMD ENT AFB ATTN ADGCB
1 CG 1ST ARMY FT GEORGE G MEADE
1 CG 3RD US ARMY FT MCPHERSON GA
1 CG FIFTH ARMY FT SHERIDAN ATTN ALFGC TNG
1 DIR HEL APG MD
1 CG USA CDC EXPERIMENTATION COMD FT DRD
2 ENGR PSYCHOL LAB PIONEERING RES DIV ARMY NATICK LABS NATICK MASS
1 TECH LIB ARMY NATICK LABS NATICK MASS
1 CG USA CDC INST OF LAND CBT FT BELVOIR
1 REDSTONE SCIENTIFIC INFO CTR US ARMY MSL COMD ATTN CHF DDC SEC ALA
1 CD USAPA MULTV DET TOBYHANNA ARMY DEPOT
1 CG ARMY ELEC PG FT HUACHUCA ATTN TECH LIB
1 SIXTH U S ARMY LIB DEPT BLDG M 13 14 PRES OF SAN
1 PLANS OFFICER PSYCH HQTRUS USACODEC FORT DRD
2 CG FT DRD ATTN G3 TNG DIV
1 DIR WALTER REED ARMY INST OF RES WALTER REED ARMY MED CTR
2 DIR WRAIR WALTER REED ARMY MED CTR ATTN NEUROPSYCHIAT DIV
1 CD HQ ARMY ENLISTED EVAL CTR FT BENJ HARRISON
1 CD USA MOBILITY EQUIP R&D CTR ATTN TECH DDC CTR FT. BELVOIR
1 CD FRANKFORD ARSNL ATTN SMUFA-N6400/202-4
1 4TH ARMY MSL COMD AIR TRANSPORTABLE SAN FRAN
2 CD PICATINNY ARSNL DOVER N J ATTN SUMPVA VCI
1 REF M MS IS NASA ALA
1 CBT DPNS RES GP CDC FT BELVOIR ATTN SR DPRS ANLS HUMAN FACTORS
1 CD ARMY CDC ARMOR AGY FT KNOX
1 CD US ARMY CDC AVN AGCY FT RUCKER
3 CD ARMY CBT DEVEL COMD CBT SUPPORT GP
1 CG USCONARC ATTN DCS INTEL FT MONROE
2 CIVILN PERS DFCR US ARMY SPT CTR ST LOUIS ATTN EMPLOYEE DEVEL DFCR
3 LIB ARMY WAR COLL CARLISLE BKS
1 COMDT ARMY INTEL SCH ATTN AMBQ-AD FT HOLABIRD
1 COMDT COMD + GEN STAFF CD FT LEAVENWORTH ATTN ARCHIVES
1 DIR OF MILIT PSYCHOL + LDRSHP US MILIT ACAD WEST POINT
1 US MILIT ACAD WEST POINT ATTN LIB
1 COMDT ARMY AVN SCH FT RUCKER ATTN SCH LIB
2 COMDT ARMY SECUR AGY TNG CTR + SCH FT DEVENS ATTN LIB
1 COMDT ARMED FORCES INDOSTR COLL FT LESLEY J MCNAIR
2 COMDT NATL WAR COLL FT LESLEY J MCNAIR ATTN CLASSF RECORDS BR LIB
1 MED FLD SERV SCH BROOKE ARMY MED CTR FT SAM HOUSTON ATTN STIMSON LIB
5 DIR OF INSTR ARMOR SCH FT KNOX
1 COMDT ARMY CHAPLAIN SCH FT HAMILTON
1 COMDT ARMY CHEM CORPS SCH FT MCCLELLAN ATTN EDUC ADV
1 ARMY FINANCE SCH FT BENJ HARRISON
1 EDUC ADV USAIS ATTN AJIIS-H FT BENNING
1 DIR OF INSTR USAIS ATTN AJIIS-D-EPRD FT BENNING
1 LIB ARMY QM SCH FT LEE
1 CD USA SEC AGY TNG CTR & SCH ATTN IATEV RSCH ADV FT DEVENS
2 COMDT US ARMY SOUTHEASTERN SIG SCH ATTN: EDUC ADVISOR FT GORDON
1 COMDT USA AD SCH FT BLISS
1 CG ARMY DRD CTR + SCH ABERDEEN PG ATTN AISD-SL
5 ASST COMDT ARMY AIR DEF SCH FT BLISS ATTN CLASSF TECH LIB
4 CG ARMY ARTY + MSL CTR FT SILL ATTN AVN OFFR
1 COMDT ARMY DEF INTEL SCH ATTN SI+AS DEPT
1 COMDT ARMED FORCES STAFF COLL NORFOLK
1 COMDT ARMY SIG SCH FT MONMOUTH ATTN EDUC COORD
1 COMDT JUDGE ADVOCATE GENERALS SCH U OF VA
1 DPTY COMDT USA AVN SCH ELEMENT GA
1 DPTY ASST COMDT USA AVN SCH ELEMENT GA
1 USA AVN SCH ELEMENT DFC OF DIR OF INSTR ATTN EDUC ADV GA
1 EDUC CONSLT ARMY MILIT POLICE SCH FT GORDON
4 COMDT ARMY ENGR SCH FT BELVOIR ATTN AIDBES-SY
1 CHF POLICY + TNG LIT DIV ARMY ARMOR SCH FT KNOX
1 COMDT ARMY AVN SCH FT RUCKER ATTN EDUC ADV
1 DIR US MIL ACAD WEST POINT
1 DIR OF MILIT INSTR US MILIT ACAD WEST POINT
1 SPEC WARFARE SCH LIB FT BRAGG
4 USA SPEC WARFARE SCH ATT: COUNTERINSURGENCY DEPT FT BRAGG
2 SECY US ARMY MSL & MUNITIONS CTR & SCH REDSTONE ARSNL
2 COMDT WOMENS ARMY CORPS SCH + CTR FT MCCLELLAN
2 HQ ABERDEEN PG ATTN TECH LIB
1 COMDT US ARMY INTEL SCH FT HOLABIRD
2 DIR BRGD + BN DPNS DEPT USAIS FT BENNING
1 DIR COMH ELEC USAIS FT BENNING
1 DIR ABN-AIR MOBILITY DEPT USAIS FT BENNING
1 CG US ARMY SIGNAL CTR & SCH ATTN SIGOTL-3 (COBET II)
1 SECY OF ARMY, PENTAGON
1 DCS-PERS DA ATTN CHF C+S DIV
1 DIR OF PERS STUDIES + RES DDCSPER DA ATTN BG WALLACE L CLEMENT
2 AGS FOR FORCE DEVEL DA ATTN CHF TNG DIV
1 CG USA MAT COMD ATTN AMCRD-TE
1 CHF OF INFO DA ATTN CHF T1 DIV
1 CLIN PSYCHOL CONSLT DFC OF CHF PSYCHIAT + NEUROL CONSLT DFC OF SURG GEN
2 CG ARMY MED R&D COMD ATTN BEHAV SCI RES BR
1 US ARMY BEHAVIORAL SCI RES LAB WASH, D.C. ATTN: CRD-AR
1 ARMY PROVOST MARSHAL GEN
2 DIR CIVIL AFFAIRS DRCTE ODCSDPS
1 DFC RESERVE COMPOD DA
50 ADMIN DDC ATTN: TCA (HEALY) CAMERON STA ALEX., VA. 22314
1 CD US ARMY MED RES LAB FT KNOX
1 CHF OF R&D DA ATTN CHF TECH + INDOSTR LIAISON DFC
1 U S ARMY BEHAVIORAL SCI RES LAB WASH, D.C. ATTN CRD-AIC
1 CD US ARMY MAT COMD WASH D.C. ATTN: AMCPY-CM ROBT DETIENNE
1 PRES ARMY INF BD FT BENNING ATTN FE+SP DIV
1 PRES ARMY MAINT BD FT KNOX
1 CD ARMY CBT DEVEL COMD MILIT POLICE AGY FT GORDON
1 US ARMY ARCTIC TEST CTR R & D OFFICE SEATTLE
2 CD 2D BN 34TH ARMOR APD 96266 SAN FRAN
2 CG 1ST INF DIV ATTN G3 APD 96343 SAN FRAN
1 CG 3RD INF DIV ATTN G3 NY
3 CG 4TH INF DIV ATTN G3 APD 96262 SAN FRAN
1 CG 7TH INF DIV ATTN G2 APD 96207 SAN FRAN
1 CG 8TH INF DIV ATTN G2 APD 09111 NY
1 CG 5TH INF DIV (MECH) FT CARSON
3 CG 82V ABN INF DIV FT BRAGG ATTN G3
1 CG 197TH INF BRGD FT BENNING ATTN S3
1 CG 1ST BN (REINF) 3D INF (THE OLD GUARD) FT MYER
1 CG 171ST INF BRGD APD 96731 SEATTLE
3 CG 25TH INF DIV APD 96223 SAN FRAN
1 CG 2ND BN 15TH INF NY ATTN S 3
1 4TH BN (MECH) 14TH INF FT KNOX
2 CONSOL RES GP 7TH PSYOP GP APD 96248 SAN FRAN
2 DA DFC OF ASST CHF OF STAFF FOR COMM-ELCT ATTN CETS-6 WASH
1 CG MILIT DIST OF WASHINGTON
1 DIR ARMY LIB PENTAGON
1 STRATEGIC PLANNING GP CORPS OF ENGR ARMY MAP SERV
1 CHF OF MILIT HIST DA ATTN GEN REF BR
1 CG 31ST ARTY BRGD AIR DEF OAKDALE PENNA
1 49TH ARTY GP AIR DEF FT LAWTON
1 CG 101ST ABN DIV FT CAMPBELL
1 CG 1ST CAV DIV APD 96490 SAN FRAN
1 US ARMY GEN EQUIP ATTN TECH LIB FT LEE
1 US ARMY TROPIC TEST CTR PD DRAWER 942 ATTN BEHAV SCIENTIST FT CLAYTON
2 CD ARMY RES DFC DURHAM
1 DA HQTRS 525TH MIL INTEL GP SAN FRAN 96307
1 CINC US ATLANTIC FLT CODE 312A NORFOLK ATTN LTC DOTY
1 CINC PACIFIC DPNS ANLS SECT FPD 96610 SAN FRAN
1 CDR TNG COMMAND US PACIFIC FLT SAN DIEGO
1 DIR PERS RES DIV BUR OF NAV PERS
1 TECH LIB BUR OF SHIPS CODE 210L NAVY DEPT
1 HUMAN FACTORS BR PSYCHOL RES DIV DNR
1 CD FLT ANTI-AIR WARFARE TNG SAN DIEGO
1 CD NUCLEAR WEAPONS TNG CTR PACIFIC U S NAV AIR STA SAN DIEGO
2 CD FLT TNG CTR NORFOLK
1 CD FLEET TNG CTR U S NAV STA SAN DIEGO
1 PRES NAV WAR COLL NEWPORT ATTN MAHAN LIB
1 CD FLT ANTI-SUB WARFARE SCH SAN DIEGO
1 CHF OF NAV RES ATTN SPEC ASST FOR R & D
1 CHF OF NAV RES ATTN HEAD PERS + TNG BR CGE 45B
1 CHF OF NAV RES ATTN DIR PSYCHOL SCI DIV CODE 45D
1 CHF OF NAV RES ATTN HEAD GP PSYCHOL BR CODE 452
1 DIR US NAV RES LAB ATTN CODE 5120
5 CD OFF OF NAV RES BR OFFICE BOX 39 FPD 09510 NY
1 CHF OF NAV AIR TNG TNG RES DEPT NAV AIR STA PENSACOLA
1 CD MED FLD RES LAB CAMP LEJEUNE
1 DIR AEROSPACE CREW EQUIP LAB NAV AIR ENGR CTR PA
1 COMDT MARINE CORPS HQ MARINE CORPS ATTN CODE AD-1B
1 HQ MARINE CORPS ATTN AX
1 DIR MARINE CORPS INST ATTN EVAL UNIT
1 CHF OF NAV AIR TECH TNG NAV AIR STA MEMPHIS
1 DIR OPS EVAL GRP OFF OF CHF OF NAV OPS OPD3EG
2 COMDT PTP COAST GUARD HQ
1 DPNS ANLS DFC HQ STRATEGIC AIR COMD OFFUTT AFB
1 CHF SCI DIV DRCTE SCI + TECH DCS R&D HQ AIR FORCE AFRSTA
1 CHF SPEC WARFARE DIV DRCTE OF PLANS + DPNS DCS-PLANS+DPNS HQ AIR FORCE
1 FAA CHF INFO RETRIEVAL BR WASH D.C.
2 HQ AFSC SCBB ANDREWS AFB
2 CDR ELEC TYS DIV L G HANSCOM FLD BEDFORD MASS ATTN ESRHA
1 HQ SAMS (SMSIR) AF UNIT POST DFC LA AFS CALIF
2 6570TH AERD MED RES LAB MRPT WRIGHT-PATTERSON AFB
1 AIR MOVEMENT DESIGNATOR AMRH BROOKS AFB
1 CDR ELEC SYS DIV LG HANSCOM FLD ATTN ESTI
1 DIR AIR U LIB MAXWELL AFB ATTN AUL3T-63-253
1 DIR OF LIB US AIR FORCE ACAD
1 COMDT DEF WPNS SYS MGT CTR AF INST OF TECH WRIGHT-PATTERSON AFB
1 COMDT ATTN LIB DEF WPNS SYS MGT CTR AF INST OF TECH WRIGHT-PATTERSON AFB
1 6570TH PERS RES LAB PRA-4 AEROSPACE MED DIV LACKLAND AFB
2 AF HUMAN RESOURCES LAB MRHTD WRIGHT-PATTERSON AFB
2 CD HUMAN RESOURCES LAB BROOKS AFB
1 PSYCHOBIOLOGY PRDG NATL SCI FOUND
1 DIR NATL SCI FOUND WASHINGTON ATTN ASST DIR FOR SOC SCI
1 DIR NATL SECUR AGY FT GED G MEADE ATTN TOL
5 CIA ATTN OCR/ADD STANDARD DIST
1 SYS EVAL DIV RES DIRECT, JATE DDD-DCO PENTAGON
1 DEPT OF STATE BUR OF INTEL + RES EXTERNAL RES STAFF
3 US INFO AGY IRI L PROCUREMENT LIB
1 SCI INFO EXCH WASHINGTON
2 CHF MGT & GEN TNG DIV TR 20D FAA WASH DC
1 BUR OF RES & ENGR US POST DFC DEPT ATTN CHF HUMAN FACTORS BR
1 EDUC MEDIA BR DE DEPT OF HEW ATTN T D CLEMENS
1 DFC OF INTERNATL TNG PLANNING & EVAL BR AID WASH DC
2 SYS DEVEL CORP SANTA MONICA ATTN LIB
1 DUNLAP + ASSOC INC DARIEN ATTN LIB
2 RESEARCH ANALYSIS CORP MCLEAN VA 22101
1 DIR RAND CORP SANTA MONICA ATTN LIB
1 U OF ILL GP EFFECTIVE RES LAB
1 MITRE CORP BEDFORD MASS ATTN LIB
2 U OF PGH LEARNING R&D CTR ATTN DIR
1 HUMAN SCI RES INC MCLEAN VA
2 TECH INFO CTR ENGR DATA SERV N AMER AVN INC COLUMBUS D
1 CHRYSLER CORP MSL DIV DETROIT ATTN TECH INFO CTR
3 CTR FOR RES IN SOCIAL SYS AMER U ATTN LIB
1 EDUC & TNG CONSULTANTS ATTN L C SILVERN LA
1 GEN DYNAMICS POMONA DIV ATTN LIB DIV CALIF
2 MARQUARDT CORP POMONA CALI ATTN DEPT 58D
1 CHF PERS SUBSYS AIRPLANE DIV MS 74-9D RENTON WASH
1 THIDKOL CHEM CORP HUMETRICS DIV LOS ANGELES ATTN LIB
2 CTR FOR RES IN SOCIAL SYS FLD DFC FT BRAGG
1 INST FOR DEF ANLS RES + ENGR SUPPORT DIV WASHINGTON
1 HUGHES AIRCRAFT COMPANY CULVER CITY CALIF
2 BATTELE MEMORIAL INC COLUMBUS LABS ATTN RACIO
1 DIR CTR FOR RES ON LEARNING + TEACHING U OF MICH
1 R M STODGILL OHIO STATE UNIV
1 EDITOR TNG RES ABSTR AMER SOC OF TNG DIRS U OF TENN
1 U OF CHICAGO DEPT OF SOC
1 CTR FOR RES IN SOCIAL SYS AMER U
3 BRITISH EMBY BRITISH DEF RES STAFF WASHINGTON
3 ACS FOR INTEL FOREIGN LIAISON OFCR TO NORWEG MILIT ATTACHE
1 ARMY ATTACHE ROYAL SWEDISH EMBY WASHINGTON
1 NATL INST FOR ALCOHOL RES OSLO
1 DEF RES MED LAB ONTARIO

1 FRENCH LIAISON DFCR ARMY AVN TEST BD FT RUCKER
 1 YDRK U DEPT OF PSYCHOL
 2 AUSTRALIAN EMBRY DFC OF MILIT ATTACHE WASHINGTON
 1 MEMNINGER FOUNDATION 7DPEKA
 2 AMER INST FOR RES SILVER SPRING
 1 AMER INST FOR RES PGH ATTN LIBN
 1 DIR PRIMATE LAB UNIV OF WIS MADISON
 3 MATRIX CORP ALEXANDRIA ATTN TECH LIBN
 1 AMER TEL+TEL CO NY
 1 U OF GEORGIA DEPT OF PSYCHOL
 1 OBERLIN COLL DEPT OF PSYCHOL
 1 DR GEORGE T HAUTY CHMN DEPT OF PSYCHOL U OF DEL
 1 HEAD DEPT OF PSYCHOL UNIV OF SC COLUMBIA
 1 U OF GEORGIA DEPT OF PSYCHOL
 1 U OF UTAH DEPT OF PSYCHOL
 1 GE CO WASH DC
 1 AMER INST FOR RES PALD ALTD CALIF
 1 N MEX STATE U
 1 ROWLAND + CO HADDONFIELD NJ ATTN PRES
 1 OHIO STATE U SCH OF AVN
 1 AIRCRAFT ARMAMENTS INC COCKEYSVILLE MD
 1 HUMAN FACTORS RES GP WASH U ST LOUIS
 1 AMER PSYCHOL ASSOC WASHINGTON ATTN PSYCHOL ABSTR
 1 NO ILL U HEAD DEPT OF PSYCHOL
 1 GEORGIA INST OF TECH DIR SCH OF PSYCHOL
 1 BELL TEL LABS INC TECH INFO LIB WHIPPANY LAB NJ ATTN TECH REPORTS LIBN
 1 AMER BEHAV SCI CALIF
 1 SAN DIEGO STATE COLL PUBLIC ADMIN CTR
 1 COLL OF WM + MARY SCH OF EDUC
 1 SD ILLINOIS U DEPT OF PSYCHOL
 2 COMMUNICABLE DISEASE CTR DEVEL + CONSULTATION SERV SECT ATLANTA
 2 WASH MILITARY SYS DIV BETHESDA MD
 1 NORTHWESTERN U DEPT OF INDSTR ENGR
 1 HONEYWELL DRD STA MAIL STA 806 MINN
 1 NY STATE EDUC DEPT ABSTRACT EDITOR AVCR
 1 AEROSPACE SAFETY DIV U OF SOUTHERN CALIF LA
 1 MR BRANDON B SMITH RES ASSOC U OF MINN
 1 CTR FOR THE ADVANCED STUDY OF EDUC ADMIN ATTN IONE PIERRON U OF DREG
 1 CHF PROCESSING DIV DUKE U LIB
 1 U OF CALIF GEN LIB DDCU DEPT
 1 HARVARD U PSYCHOL LABS LIB
 1 U OF ILL LIB SER DEPT
 2 U OF KANSAS LIB PERIODICAL DEPT
 1 U OF NEBRASKA LIBS ACQ DEPT
 1 OHIO STATE U LIBS GIFT + EXCH DIV
 1 PENNA STATE U PATTEE LIB DOCU DESK
 1 PURDUE U LIBS PERIODICALS CHECKING FILES
 1 STANFORD U LIBS DDCU LIB
 1 LIBN U OF TEXAS
 1 SYRACUSE U LIB SER DIV
 1 U OF MINNESOTA LIB
 1 STATE U OF IDWA LIBS SER ACQ
 1 NO CAROLINA STATE COLL DH HILL LIB
 2 BOSTON U LIBS ACQ DIV
 1 U OF MICH LIBS SER DIV
 1 BROWN U LIB
 2 COLUMBIA U LIBS DDCU ACQ
 1 DIR JOINT U LIBS NASHVILLE
 1 U OF DENVER MARY REED LIB
 2 DIR U LIB GED WASHINGTON U
 2 LIB OF CONGRESS CHF OF EXCH + GIFT DIV
 1 U OF PGH DDCU LIBN
 1 CATHOLIC U LIB EDUC & PSYCHOL LIB WASH DC
 1 U OF KY MARGARET I KING LIB
 1 SD ILL U ATTN LIBN SER DEPT
 1 KANSAS STATE U FARRELL LIB
 1 BRIGHAM YOUNG U LIB SER SECT
 1 U OF LOUISVILLE LIB BELKNAP CAMPUS
 1 CHF PSYCHOL SERVICES DIV BATTIELE MEMORIAL INST COLUMBUS OHIO
 1 HUMAN FACTORS & DPS RSCH UNIT KOREA
 1 DEPT OF NAT'L DEF CANADIAN JOINT STAFF WASH DC
 1 DIR INTERNAT'L SERV DIV AIR SILVER SPRING MD
 1 AGRIC DEV COUNCIL INC NY NY
 1 AMER FRIENDS SERV COMM ATTN INT'L SERVICE DIV PHIL PA
 1 CHF PERS & TNG REQUIREMENTS BR TNG RSCH DIV 6570TH AMRL WRIGHT-PATTERSON
 1 CARE INC NY NY
 1 ASSOC DIR INTERNAT'L TNG & RSCH PRDG THE FORD FOUND NY NY
 1 AREA TNG MAT CTR FOREIGN SERV INST DEPT OF STATE WASH DC

1 CHF LANG & AREA TNG USIA WASH DC
 1 PEACE CORPS ATTN DIR DIV OF VOLUNTEER SUPPORT WASH DC
 1 PEACE CORPS ATTN DIR DIV OF UNIV RELATIONS & TNG WASH DC
 1 PEACE CORPS ATTN ASST DIR OF UNIV RELATIONS & TNG LATIN AMER WASH DC
 1 PEACE CORPS ATTN ASST DIR OF UNIV RELATIONS & TNG FAR EAST WASH DC
 1 PEACE CORPS ATTN ASST DIR OF UNIV RELATIONS & TNG AFRICA WASH DC
 1 DIR PEACE CORPS TNG CTR UNIV OF HAWAII HILO HAWAII
 1 DIR PEACE CORPS TNG CTR UNIV OF WISC MILWAUKEE
 1 DIR CAMP DAVID CROZIER PEACE CORPS TNG CTR ARECIBO PUERTO RICO
 1 DIR CAMP LAWRENCE RADLEY PEACE CORPS TNG CTR ARECIBO PUERTO RICO
 1 DIR PEACE CORPS TNG CTR CHRISTIANSTED ST CROIX VIRGIN ISLANDS
 1 CHF LANG & AREA SECT DIV OF COLL & UNIV ASST DFC OF EDUC HEM WASH DC
 1 DIV OF FOREIGN STUDIES US DFC OF EDUC HEM WASH DC
 1 US DEPT OF AGRIC DFC OF SEC DFC OF PERS WASH DC
 1 EDUC SPECIALIST DEPT OF AGRIC DIV OF EXT RSCH & TNG WASH DC
 1 HQ 18TH ABN CORPS FT BRAGG
 1 HQ USA SPEC WARFARE SCH ATTN EDUC ADV FT BRAGG
 1 CG USA JFK CTR FOR SPEC WARFARE FT BRAGG
 1 COMDT USA SPEC WARFARE SCH ATTN DOI FT BRAGG
 1 CD SPEC FORCES TNG GP FT BRAGG
 1 CD 3RD SPEC FORCES GP FT BRAGG
 1 HQ 6TH SPEC FORCES GP 1ST SPECIAL FORCES FT BRAGG
 1 CD 5TH SPEC FORCES GP FT BRAGG
 1 CD 6TH SPEC FORCES GP FT BRAGG
 1 CD 7TH SPEC FORCES GP FT BRAGG
 1 CD USA CDC SPEC WARFARE AGCY FT BRAGG
 1 PSYCHOL DPNS DEPT USA SPEC WARFARE SCH FT BRAGG
 1 USA SPEC WARFARE SCH ATTN CO MATA DEPT FT BRAGG
 1 LIB USA SPEC WARFARE SCH FT BRAGG
 1 CO 1ST CA CO FT BRAGG
 1 CO 2ND CA CO FT BRAGG
 1 CD USA CDC CA AGCY FT GORDON
 1 CD 41ST CA CO FT GORDON
 1 CD 42ND CA CO FT GORDON
 1 CD 85TH CA GP FT GORDON
 1 COMDT USA CA SCH FT GORDON
 1 LIB USA CA SCH FT GORDON
 1 EDUC ADV USA CA SCH FT GORDON
 1 COORDINATOR OF CIV ACTION COURSE USA CA SCH FT GORDON
 1 CD 3RD CA DETACHMENT PD DRAWER 922 FT CLAYTON CZ
 1 PRDJ DFCR USA CDC CHAPLAIN AGCY FT LEE VA
 1 CORG HQ USA CDC FT BELVOIR
 1 LIB COMD & GEN STAFF COLL FT LEAVENWORTH
 1 LIB ARMED FORCES STAFF COLL NORFOLK
 1 COMDT ARMY WAR COLL CARLISLE BARRACKS PA
 1 EDUC ADV HQ DEF INFO SCH FT BENJAMIN HARRISON IND
 1 CHF INTERN REL & GOVT DEPT DFC INFO SCH FT BENJ HARRISON
 1 WARFARE SYS SCH AIR UNIV USAF MAXWELL AFB ALA
 1 COMDT AIR WAR COLL MAXWELL AFB
 1 DIR AIR UNIV LIB MAXWELL AFB
 1 LIB NAT'L WAR COLL FT MCNAIR DC
 1 COMDT INDUST COLL OF THE ARMED FORCES FT MCNAIR
 1 LIB INDUST COLL OF THE ARMED FORCES FT MCNAIR
 1 COMDT MARINE CORPS EDUC CTR MARINE CORPS SCH QUANTICO
 1 LIB MARINE CORPS EDUC CTR MARINE CORPS SCH QUANTICO
 1 COMDT DEF INTELL SCH USN STA ANACOSTIA ANNEX WASH DC
 1 CIA ATTN CHF AREA TNG WASH DC
 1 MIL PERS & TNG STA DNI WASH DC
 1 DIR ORIENTATION TNG BR TNG DIV AID WASH DC
 1 AGCY FOR INTERNAT'L DEVEL ASST DIR FOR TNG DFC OF PERS ADMIN
 1 AID RSCH & EVAL STAFF DFC HUMAN RESOURCES & SDC DEVEL DEPT OF STATE
 1 ASSOC DEAN OF AREA STUDIES FOREIGN SERV INST DEPT OF STATE
 1 NSA DFC OF TNG SERV FT MEADE MD
 1 LIB USA INTELL SCH FT HOLABIRD
 1 USA INTELL SCH ATTN ADM DIV DFC OF ACAD DPNS FT HOLABIRD
 1 USA INTELL SCH ATTN DIR DEPT OF AREA STUDIES FT HOLABIRD
 1 CG USA INTELL SCH FT HOLABIRD
 1 DIR OF INSTR USN ACAD ANNAPOLIS
 1 DFC OF THE CHF OF CIV PERS DCSPER DEPT OF ARMY PENTAGON
 1 TNG & DEVEL DIV DCSPER DA PENTAGON
 1 CHF FOREIGN MIL TNG DIV DDCSGPS DA PENTAGON
 1 DIR DIRECTORATE OF INTERN'L & CIV AFFAIRS DCSGPS DA PENTAGON
 1 DACS FORCE DEVEL DA ORG & TNG DIV PENTAGON
 1 USCONARC LIAISON DFCR DA WASH DC
 1 DFC OF DPTY CHF OF STAFF FOR INDIV TNG USCONARC
 1 CHF SPWAR CA DIV DCS UNIT TNG & READINESS USCONARC
 1 CD 8TH SPEC FORCES GP FT BRAGG

ERIC Clearinghouse

AUG 10 1970

on Adult Education